July-August-September
1929

STOCK LIST AND REFERENCE BOOK

SCULLY

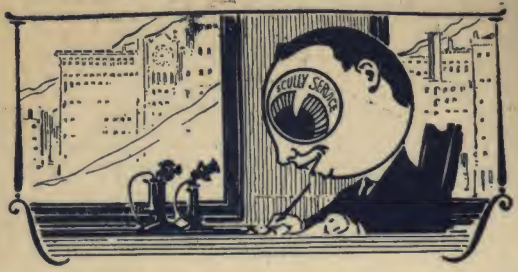
STEEL AND IRON COMPANY

CHICAGO
& NEW YORK

TELEPHONE
CANAL 2500

"Scully Service"

FOR DESK USE YOU WILL FIND IT AN ADDITIONAL CONVENIENCE TO CUT ALONG LINE THUS EXPOSING THUMB INDEX WITHOUT TURNING COVER



OUR DOWN-TOWN OFFICES
are in Suite No. 1127 Continental Commercial Bank Bldg., at the South-West Corner of Adams and La Salle Streets. *Automobile service from there to our General Offices at 24th Street and Ashland Avenue.*

SCULLY
Steel and Iron Company
CHICAGO

Local and Long Distance Phones Canal 2500
Special Post Office Box 814

District Sales Offices

EASTERN OFFICE..... { Room 1806 No. 2 Rector St., NEW YORK
MILWAUKEE OFFICE.....921 Railway Exchange Bldg.
SALT LAKE CITY, UTAH.....209 Scott Bldg.
COLUMBUS, OHIO.....Connor Bldg., 233 So. High St.

Warehouses & General Offices

SCULLY
STEEL & IRON CO.
ASHLAND AVE. AND 24TH. ST.
CHICAGO

LARGE STEEL WAREHOUSE - 250 ft. x 650 ft.
SHEET STEEL WAREHOUSE - 100 ft. x 300 ft.
HARDWARE BUILDING - - 100 ft. x 300 ft.
GENERAL OFFICES - - - 100 ft. x 300 ft.
MACHINERY WAREHOUSES - 80 ft. x 200 ft.
RIVET AND MISCELLANEOUS
WAREHOUSE - - - - 100 ft. x 250 ft.

Also Light Sheet Steel Warehouses
3 Floors 60x175 Feet at Fulton and Union Sts.

POST OFFICE BOX 814

Beams
Channels
Tees-Zees
Angles

ar Steel
Bands
Hoops

Tires
Beef Rail
Tool Steel

oncrete
ars—
ing and
pecial
Steel

C. D. Bars
and Strip
Steel

Plates
Heads

Sheets

Tubes
Rivets

Bolts, Nuts
Washers
Lugs

Trolley
Hoi
St
C

Boiler
Special
Too

Machinery
Hand an
Powe

Tables

Whee
Cast
Extr

INDEX.

Page

Angles 8-9
Arches, Corrugated 59
Babbitt 86
Bands and Hoops.....16-17
Bars, Concrete..... 22
Drift Pin Steel..... 25
Electric Alloy 26-27
Forging 25-26-27
Free Cutting 25
Mild Steel .....10 to 15
Spring Steel 23
Staybolt Iron 98-99
Tire Steel 18-19-20
Tool Steel 21
Welding 25
Beading Tools 119-120
Beams, Steel "H"..... 6
Beams, Steel "I"..... 4
Beams, Carnegie Sections.. 6
Beef Rail, Packing House.. 18
Bevel Edge Steel..... 18
Bevel Washers 77
Billets, Forging 27
Blow-Off Valves 116-117
Boiler Hangers 91
Boiler Heads, Etc.....44-45
Bolts 100
Braces 90
Flanges 94-95-96-97
Lugs 91
Nozzles 91
Rivets 64-65
Test Pump 104
Tubes 60-61
Boiler Manheads 92-93
Boilermakers' Hammers and Tools 120-121-122
Bolts, Ends 70
Bolts, Boiler 100
Carriage 71-72
Hand-hole 93
Machine 68-69-70
Man-hole 93
Patch 100
Stay 98-99
Boring and Turning Bars and Grinders (for Lathes) 114-115
Braces, Boiler 90
Carriage Bolts 71-72
Cast Iron Washers..... 76
Caulking Tools 119-120
Chain Hoists 82-83-84-85
Chain 87-88-89
Cold Shuts 89
Hooks 89
Rings 89
Repair Links 89
Slings 89
Channels 5
Price List Extras...152-153
Rubber Tire 18
Chisels, For Pneumatic Hammers 119
Chisels, Hand 120
Chuck, Staybolt 101
Circles 44
Clamps, Boilermakers' 104
Cleaners, Flue 102
Cold Rolled Steel (Bars)... 28-29-30-31
Cold Rolled Strip Steel..32-33

Page

Cold Shuts 89
Concrete Reinforcement Steel 22
Copper Bearing Plates...40-41
Copper Bearing Sheets 50-53-56-57
Copper Ferrules 102
Corrugated Arches 59
Corrugated Steel 58-59
Couplings, Hose 126
Crabs, Man-hole 93
Crayons, Soapstone 101
Cutters, Flue ...110-111-112-113
Flue Hole 104
Deformed Bars 22
Dies 132
Drift Pins 120
Electrodes (Welding Rod). 80
Expanders, Flue 105-106-107-108-109
Expansion Reamers 125
Extras, For Cutting Quantity, Etc., Cold Rolled Bars 30-31
Extras For Cutting Structural Steel Bars, Plates and Sheets 152-153
Eye Bolts 86
Ferrules, Copper 102
Fire Box Steel..... 43
Fitting-Up Bolts 100
Flanges, Forged Steel 94-95-96-97
Flange Steel Plate.....42-43
Flanged and Dished Heads. 45
Flaring Tool 118
Flatters 122
Floor Plates, Wrought Steel 46-47
Flue Cleaners 102
Cutters 110-111-112-113
Expanders 105-106-107-108-109
Hole Cutter 104
Plugs 102
Flues, Iron, Seamless and Steel 60-61
Forges 124
Fullers 122
Galvanized Angles 9
Galvanized Steel Bands.... 16
Galvanized Steel Bars..... 12
Galvanized Wire Strand.... 86
Galvanized Sheets .....54 to 58
Gaskets, Manhole 93
Grabs Hooks 89
"H" Beams 6
Hammers and Boilermakers' Hand Tools 120-121-122
Hammers, Pneumatic Tools for 118-119
Handles, Hammer 123
Hand-Holes 92
Hand-Hole Bolts 93
Hangers, Boiler 91
Hardies 122
Heads, Boiler and Tank..44-45
Headers, Staybolt 118
Hexagon, Cold Rolled..... 29
Hoists, Chain 82-83-84-85
Hoops, Steel 17
Hose Couplings (air).....126
"I" Beams 4
Iron, Staybolt 98-99

INDEX—Continued

Page

Kelly Tube Flaring Tool..118
Keystone Sheets, C. B. 50-53-56-57
Lag Screws 73
Lead Coated Sheets 53
Lock Washers 78
Long Terne Sheets..... 53
Lugs, Boiler 91
Lugs, Tank 79
Machine Bolts 68-69-70
Machinery .....127 to 131
Malleable Washers 77-78
Man-Holes & Hand-Holes.92-93
Man-Hole Bolts 93
Mauls 123
Mild Steel Bars.....10 to 15
Nozzles 91
Nuts, Cold Punched..... 76
Semi-finished 76
Hot Pressed 75
Packing House Beef Rail 18
Parts for Ideal Self-Feed Tube Cutter 111-112-113
Patch Bolts and Taps.....100
Piling 6
Plates, Bridge Steel 36-37-38-39
Flange Steel 42-43
Fire Box Steel..... 43
Floor 46-47
Scully Cop. Bear'g St'l.40-41
Tank Steel 36-37-38-39
Universal 34-35
Plugs, Flue 102
Pumps, Boiler Test.....104
Punches, Standard 132
Boilermakers' Screw.130-131
Lever 129
Marking, Center, Bob'g.120
Ratchet Drills 101
Ratchet Wrench 110
Ratchet Handles 130
Reamers, Air Drill.....103
Reamers, Expansion 125
Reinforcing Bars 22
Rings 89
Rivet Forges 124
Rivet Sets 118
Rivets, Boiler 64-65
Pound 66-67
Sheet and Tank.....66-67
Structural 62-63
Roller Expanders ...105 to 109
Roofing and Siding.....58-59
Rubber Tire Channels..... 18
Saddle Plates, Man-hole.92-93
Saw Blades 18
Screw-Stock, Cold Drawn 28-29
Screws, Lag or Coach..... 73
Screw Plates, Boilermakers'.. 98
Screw Punches, Boiler-makers' 130
Sets, Rivet 118-122
Shafting 28
Cold Drawn and Turned Steel 28-29-30-31
Cold Rolled 28-29-30-31
Shears, lever 129
Sheets, Blue Annealed.48-49-50
Corrugated 58-59
Galvanized .....54 to 58
One Pass Cold Rolled.51-52
Keystone, C. B..50-53-56-57
Long Terne 53

Page

Siding, Steel 58-59
Slip Hooks 89
Sledges 121
Smoke Box Extension 111
Spring Expanders 106-107
Staybolts 98-99
Staybolt Chuck 101
Header 118
Iron 98-99
Taps 99
Steel Bars .....10 to 15
Bridge Plate ...36-37-38-39
Cold Rolled .....28 to 31
Heads 44-45
Fire Box Plate..... 43
Flange Plate 42-43
Floor Plate 46-47
Bands and Hoops.....16-17
Tank Plate 36-37-38-39
Tire 18-19-20
Tool 21
Universal Rolled 34-35
Steel Sheets, Blue Annealed 48-49-50
Corrugated 58-59
Galvanized .....54 to 58
Keystone, C. B..50-53-56-57
Ternes 53
One Pass Cold Rolled.51-52
Wellsville Polished 53
Stone Saw Blades..... 18
Strand Wire 86
Strip Steel, C. R......32-33
Structural Material ....4 to 9
Swages 122
Tables .....133 to 151
Tank Flanges 95
Tank Lugs 79
Taps, Patch bolt 100
Taps, Staybolt 99
Tees 7
Terne Coated Sheets..... 53
Test Pump, Boiler 104
Tire Steel 18-19-20
Tongs, Rivet 120
Tools, Hand 120-121-122
Pneumatic 118-119
Tool Steel 21
Trolleys 81
Tube Cutter 110-111-112-113
Tube Cleaners 102
Tube Expanders ....105 to 109
Tube Hole Cutter 104
Tubes, Iron, Steamless and Steel 60-61
Cleaners 102
Turnbuckles 74
Universal Plates 34-35
Valves, Blow-Off 116-117
Vises 131
Washers 76-77-78
Welding Flanges 96-97
Welding Rod 80
Wellsville Polished Sheet Steel 53
Wire Strand, Galvanized... 86
Clips, Hooks, Rings, etc. 86
Wrenches, Boilermakers' ...122
Ratchet 110
Zees 7

STEEL I BEAMS IN STOCK

Size in.	Wt. lbs. per ft.	Thk'ns of Web	Width of Flange	Length ft.	Extra for Size	Size in.	Wt. lbs. per ft.	Thk'ns of Web	Width of Flange	Length ft.	Extra for Size
3	5.7	.170	2.330	3 to 40	Base	12	31.8	.350	5.000	3 to 60	Base
	6.5	.263	2.423	"	"		35.	.436	5.086	"	"
	7.5	.361	2.521	"	"		40.8	.460	5.250	"	"
4	7.7	.190	2.660	"	"		45.	.576	5.366	"	"
	8.5	.263	2.733	"	"		50.	.699	5.489	"	"
	9.5	.337	2.807	"	"		55.	.822	5.612	"	"
	10.5	.410	2.880	"	"	15	35.*	.330	5.500	"	05
5	10.	.210	3.000	"	"		42.9	.410	5.500	"	Base
	12.25	.357	3.147	3 to 60	"		50.	.558	5.648	"	"
	14.75	.504	3.294	"	"		55.	.656	5.746	"	"
6	12.5	.230	3.330	"	"		60.8	.590	6.000	"	"
	14.75	.352	3.452	"	"		70.	.784	6.194	"	"
	17.25	.475	3.575	"	"		81.3	.810	6.400	"	"
7	15.3	.250	3.660	"	"		100.	1.167	6.767	"	"
	17.5	.353	3.763	"	"	18	46.*	.380	6.000	"	15
	20.	.458	3.868	"	"		54.7	.460	6.000	"	10
8	18.4	.270	4.000	"	"		65.	.637	6.177	"	"
	20.5	.357	4.087	"	"		70.	.719	6.259	"	"
	23.	.449	4.179	"	"		75.6	.560	7.00	"	"
	25.5	.541	4.271	"	"		90.	.796	7.236	"	"
9	21.8	.290	4.330	"	"	20	65.4	.500	6.250	"	"
	25.	.406	4.446	"	"		81.4	.600	7.000	"	"
	30.	.569	4.609	"	"		100.	.873	7.273	"	"
	35.	.732	4.772	"	"	21	58.*	.430	6.50	"	15
10	22*	.250	5.000	"	.05	24	71.*	.480	7.000	"	"
	25.4	.310	4.660	"	Base		79.9	.500	7.000	"	10
	30.	.455	4.805	"	"		100.	.754	7.254	"	"
	35.	.602	4.952	"	"		105.9	.625	7.875	"	"
	40.	.749	5.099	"	"		115.	.750	8.000	"	"
12	25.*	.270	5.000	"	.05						

No cutting charge on lengths 3′ 0″ or over.

For List of cutting extras, see page 153. *Are special light sections.

WRITE FOR PRICES

STEEL CHANNELS
IN STOCK

Size in.	Wt. lbs. per ft.	Thk'ns of Web	Width of Flange	Length ft.	Extra for Size	Size in.	Wt. lbs. per ft.	Thk'ns of Web	Width of Flange	Extra Length ft.	Extra for Size
3	4.1	.170	1.410	3 to 40	Base	9	13.4	.230	2.430	3 to 60	Base
	5.	.264	1.504	"	"		15.	.288	2.488	"	"
	6.	.362	1.602	"	"		20.	.452	2.652	"	"
4	5.4	.180	1.580	"	"		25.	.612	2.812	"	"
	6.25	.252	1.652	"	"	10	15.3	.240	2.600	"	"
	7.25	.325	1.725	"	"		20.	.382	2.742	"	"
5	6.7	.190	1.750	3 to 60	"		*21.7	.375	3.375	"	"
	9.	.330	1.890	"	"		25.	.529	2.889	"	"
	11.5	.477	2.037	"	"		30.	.676	3.036	"	"
6	8.2	.200	1.920	"	"		35.	.823	3.183	"	"
	10.5	.318	2.038	"	"	12	20.7	.280	2.940	"	"
	13.	.440	2.160	"	"		25.	.390	3.050	"	"
*6	15.3	.340	3.500	50 to 66	"		30.	.513	3.173	"	"
	15.5	.563	2.283	3 to 60	"		35.	.636	3.296	"	"
7	9.8	.210	2.090	"	"		40.	.758	3.418	"	"
	12.25	.318	2.198	"	"	+13	31.8	.375	4.000	"	"
	14.75	.423	2.303	"	"	+	50.	.787	4.412	"	"
	17.25	.528	2.408	"	"	15	33.9	.400	3.400	"	"
	19.75	.633	2.513	"	"		35.	.422	3.422	"	"
8	11.5	.220	2.260	"	"		40.	.524	3.524	"	"
	13.75	.307	2.347	"	"		45.	.622	3.622	"	"
	16.25	.399	2.439	"	"		50.	.720	3.720	"	"
	18.75	.490	2.530	"	"		55.	.818	3.818	"	"
	21.25	.582	2.622	"							

*Indicates ship building channel. +Indicates car truck channel.
No extra for cutting 3'0" or longer—Extra for shorter lengths shown on page 153.

LIGHT OR GROOVED-CHANNELS
IN STOCK

Size	Length in Feet	Est. Wt. per ft. lbs.	Extra for Size	Size	Length in Feet	Est. Wt. per ft. lbs.	Extra for Size
$\frac{1}{2}$x $\frac{1}{4}$x$\frac{1}{8}$	18-20	.28	2.50	1 x $\frac{1}{2}$x$\frac{1}{8}$	16-18-20-25	.84	.50
$\frac{5}{8}$x $\frac{5}{16}$x$\frac{1}{8}$	16-18-20-25	.41	1.70	1$\frac{1}{8}$x$\frac{9}{16}$x$\frac{3}{16}$	20-25	1.12	.40
$\frac{3}{4}$x $\frac{5}{16}$	16-18-20-30	.30	Special	1$\frac{1}{4}$x $\frac{1}{2}$x$\frac{1}{8}$	16-18-20-25	.99	.50
$\frac{3}{4}$x $\frac{5}{16}$x$\frac{1}{8}$	16-18-20-25	.50	.60	1$\frac{1}{2}$x $\frac{1}{2}$x$\frac{1}{8}$	16-18-20-25	1.12	.40
$\frac{3}{4}$x$\frac{3}{8}$x No.15	16-18-20-			1$\frac{1}{2}$x $\frac{9}{16}$x$\frac{1}{4}$	20-25	1.68	.25
	22-25	.40	1.00	1$\frac{1}{2}$x $\frac{3}{4}$x$\frac{1}{8}$	16-18-20-25	1.17	.40
$\frac{3}{4}$x $\frac{3}{8}$x$\frac{1}{8}$	16-18-20-			1$\frac{1}{2}$x1$\frac{1}{2}$x$\frac{3}{16}$	16-20-25	2.63	.40
	25	.56	.60	1$\frac{3}{4}$x $\frac{1}{2}$x$\frac{3}{16}$	18-20-25	1.55	.25
$\frac{7}{8}$x $\frac{3}{8}$x$\frac{1}{8}$	18-20-30	.61	"	2 x $\frac{9}{16}$x$\frac{3}{16}$	16-18-20-25	1.86	"
$\frac{7}{8}$x $\frac{7}{16}$x$\frac{1}{8}$	16-18-20-22-25	.69	"	2 x $\frac{5}{8}$x$\frac{1}{4}$	16-18-20-25	2.28	"
1x$\frac{3}{8}$x.07	16-18-20	.41	Special	2 x1 x$\frac{3}{16}$	16-18-20-25	2.32	"
1 x $\frac{3}{8}$x$\frac{1}{8}$	16-18-20-25	.68	.50	2$\frac{1}{2}$x $\frac{5}{8}$x$\frac{3}{16}$	20-22-25	2.27	"

For cutting extras, see page 153.

WRITE FOR DISCOUNTS

CARNEGIE BEAM SECTIONS

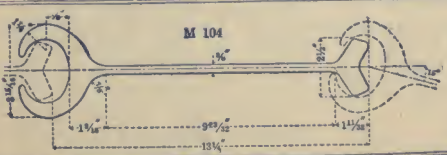
Manufacturers Standard Specifications, Class A

Section Index	Depth of Section Inches	W'ght per Foot Lbs.	Extra for Size c per Lb.	FLANGE Width Inches	FLANGE Thickness Inches	Web Thickness Inches	L'gths in Stock (Feet) Ch'ge
CB 82	8.000	24	.05	6.500	0.400	0.239	70
CB 101	9.902	21	.05	6.000	0.332	0.230	70
CB 102	10.000	31	.10	8.000	0.381	0.320	70
	10.000	42	.10	8.324	0.381	0.644	70
CB 103	10.000	49	.10	9.000	0.610	0.375	70
CB 121	11.924	25	.05	6.000	0.382	0.240	70
CB 122	12.000	28	.05	6.500	0.420	0.240	70
	12.236	36	05	6.568	0.538	0.308	70
CB 123A	12.000	55	.10	9.000	0.665	0.375	70
CB 141	13.964	30	.05	6.000	0.431	0.270	70
CB 142	14.160	39	.05	6.798	0.529	0.318	70
CB 161	15.930	35	.05	6.000	0.485	0.290	70
CB 163	16.000	58	.10	8.500	0.663	0.375	70
CB 181	18.000	47	.15	7.500	0.550	0.320	70
CB 182	18.000	67	.15	8.500	0.745	0.406	70
CB 211	21.000	58	.15	8.000	0.608	0.360	80
CB 212	21.000	80	.15	9.000	0.815	0.438	80
CB 241	24.000	70	.15	8.500	0.663	0.400	80
CB 243	24.000	100	.15	12.000	0.787	0.450	80
CB 271	27.000	91	.15	9.750	0.755	0.461	80
CB 301	30.000	115	.15	10.500	0.882	0.530	80
CB 302	30.000	180	.15	14.000	1.206	0.670	80

No extra for cutting 3'0" or longer. Extra for shorter lengths shown on page 153.

STEEL H BEAMS IN STOCK

Size Inches	Wgt.. Pounds per Foot	Thickness of Web	Width of Flange	Length Feet	Extra for Size
4	13.8	.313	4.0	3 to 60	.10
5	18.9	.313	5.0	"	"
6	20.0	.25	6.00	"	"
6	24.1	.313	6.00	"	"
6	25.0	.27	6.02	"	"
8	32.6	.29	8.00	"	"
8	34.3	.375	8.00	"	"



U. S. STEEL SHEET PILING

Size	Weight per Foot	Warehouse Extra for Size	LENGTHS IN STOCK (Feet)
13¼	38	Base	60

$1.00 per 100 lbs. extra for corner pieces.

WRITE FOR PRICES

STEEL TEES
IN STOCK

Size			Length Feet	Est. Wt. per ft. lbs.	Extra for Size	Size			Length Feet	Est. Wt. per ft. lbs.	Extra for Size
Flange	Stem	Thickness				Flange	Stem	Thickness			
3/4	3/4	1/8	20-22	.61	1.10	2 1/2	2 1/2	3/8	20-25-30-40	6.4	.30
7/8	7/8	1/8	"	0.73	.90	2 1/2	3	5/16	3-50	6.1	.10
1	1	1/8	20-22-25	0.90	.70	3	2 1/2	5/16	"	6.1	"
1	1	3/16	"	1.20	.55	3	3	5/16	"	6.7	"
1 1/4	1 1/4	3/16	"	1.55	"	3	3	3/8	"	7.8	"
1 1/4	1 1/4	1/4	"	2.02	"	3 1/2	3	3/8	"	8.5	"
1 1/2	1 1/2	3/16	"	1.88	.30	3	3	5/16	"	8.5	"
1 1/2	1 1/2	1/4	20-22-25-30	2.47	"	3	3 1/2	3/8	"	8.5	"
1 3/4	1 3/4	3/16	20-22-25	2.30	"	3 1/2	3 1/2	3/8	"	9.2	"
1 3/4	1 3/4	1/4	"	2.90	"	3 1/2	3 1/2	1/2	"	11.7	"
2	1 1/2	1/4	20-22-30	3.10		3 1/2	4	3/8	"	9.8	"
2	2	1/4	20-22-25-30-40	3.60	"	4	3	3/8	"	9.2	"
						4	4	3/8	"	10.5	"
2	2	5/16	20-22-25-30-40	4.40	"	4	4	7/16	"	12.1	"
					"	4	4	1/2	"	13.5	"
2 1/4	2 1/4	1/4	20-22-25-40	4.1		4	5	3/8	"	11.9	"
2 1/2	2 1/2	5/16	20-22-25-30-40	5.5	.30	4	5	1/2	"	15.3	"
						4 1/2	2 1/2	3/8	"	9.2	"

For cutting extras, see page 153.

STEEL ZEES
IN STOCK

Flange Inches	Web Inches	Flange Inches	Thickness Inches	Weight per Ft.	Length Feet	Extra for Size
*1 1/4	1 3/4	1 3/4	3/16	2.8	.40	.60
*1 1/4	1 3/4	2 1/8	7/32	3.5	.40	.75
2 11/16	3	2 11/16	1/4	6.7	3.66	Base
2 3/4	3 1/16	2 3/4	5/16	8.5	"	"
2 11/16	3	2 11/16	3/8	9.8	"	"
3 1/16	4	3 1/16	1/4	8.2	"	"
3 1/8	4 1/16	3 1/8	5/16	10.3	"	"
3 3/16	4 1/8	3 3/16	3/8	12.5	"	"
3 1/4	5	3 1/4	5/16	11.6	"	"
3 5/16	5 1/16	3 5/16	3/8	14.0	"	"
3 1/4	5	3 1/4	1/2	17.9	"	"
3 1/2	6	3 1/2	3/8	15.7	"	"
3 5/8	6 1/8	3 5/8	1/2	21.1	"	"

For cutting extras, see page 153.
*These sizes are Copper Bearing.

WRITE FOR PRICES

STEEL FILLET ANGLES

IN STOCK

Size, inches	Length, feet	Est. Wt. per ft.	Ex. for Size
½x ½x⅛	20-22	0.38	2.20
⅝x ⅝x⅛	"	0.48	1.50
¾x ¾x⅛	16-20-22	0.59	.60
⅞x ⅞x⅛	"	0.70	.40
1 x ⅝x⅛	20-22	0.64	.60
1 x1 x⅛	16-20-22-30	0.80	.30
1 x1 x3/16	"	1.16	.25
1 x1 x¼	20-22-30	1.49	.25
1¼x1¼x⅛	"	1.01	.30
1¼x1¼x3/16	"	1.48	.25
1¼x1¼x¼	"	1.92	.25
1⅜x ⅞x⅛	20-22	0.91	.40
1½x1½x⅛	20-22-30	1.23	.25
1½x1½x3/16	"	1.80	.15
1½x1½x¼	"	2.34	.15
1½x1½x5/16	"	2.86	.15
1½x1½x⅝	"	3.35	.15
1¾x1¾x⅛	"	1.44	.25
1¾x1¾x3/16	"	2.12	.15
1¾x1¾x¼	"	2.77	.15
1¾x1¾x5/16	"	3.39	.15
2 x1½x⅛	"	1.44	.25
2 x1½x3/16	"	2.12	.15
2 x1½x¼	"	2.77	.15
2 x2 x⅛	"	1.65	.25
2 x2 x3/16	20-22-30-40	2.44	.15
2 x2 x¼	20-22-30-60	3.19	.15
2 x2 x5/16	"	3.92	.15
2 x2 x⅜	20-30-60	4.70	.15
2¼x2¼x⅛	20-22-30	1.86	.25
2¼x2¼x3/16	"	2.75	.15
2¼x2¼x¼	"	3.62	.15
2¼x2¼x5/16	"	4.50	.15
2½x2 x3/16	20-22-30	2.75	.15
	40-60		
2½x2 x¼	20-22-30-60	3.62	.15
2½x2 x5/16	"	4.50	.15
2½x2 x⅜	20-22-30	5.30	.15
2½x2½x⅛	"	2.08	.25
2½x2½x3/16	20-22-30-60	3.07	.15
2½x2½x¼	30-60	4.10	.15
2½x2½x5/16	20-30-60	5.00	.15
2½x2½x⅜	30-60	5.90	.15
3 x2 x3/16	20-30	3.07	.35
3 x2 x¼	"	4.1	Base
3 x2 x3/16	20-22-30-40	2.44	.15
3 x2 x¼	20-22-30-60	3.19	.15
3 x2 x5/16	"	3.92	.15
3 x2 x⅜	20-30-60	4.70	.15
3 x2½x3/16	20-22-30-40	2.75	.15
3 x2½x¼	20-22-30-60	3.62	.15
3 x2½x5/16	"	4.50	.15
3 x2½x⅜	20-22-30	5.30	.15
3 x2½x½	"	6.90	.15
3 x3 x3/16	20-22-30-40	3.71	.15
3 x3 x¼	20-22-30-60	4.90	.15
3 x3 x5/16	"	6.10	"
3 x3 x⅜	"	7.20	"
3 x3 x7/16	"	8.30	"
3 x3 x½	"	9.40	"
3 x3 x⅝	"	11.5	"
3½x2½x¼	20-30	4.9	"
3½x2½x5/16	30-60	6.1	"
3½x2½x⅜	"	7.2	"
3½x2½x½	"	9.4	"
3½x2½x⅝	"	11.5	"
3½x3 x5/16	"	6.6	"
3½x3 x⅜	"	7.9	"
3½x3 x7/16	"	9.1	"
3½x3 x½	"	10.2	"
3½x3½x¼	"	5.80	"
3½x3½x5/16	"	7.2	"
3½x3½x⅜	"	8.5	"
3½x3½x7/16	"	9.8	"
3½x3½x½	"	11.1	"
3½x3½x⅝	"	13.6	"
4 x3 x¼	"	5.8	"
4 x3 x5/16	"	7.2	"
4 x3 x⅜	"	8.5	"
4 x3 x7/16	"	9.8	"
4 x3 x½	"	11.1	"
4 x3½x⅜	"	9.1	"
4 x4 x¼	"	6.6	"
4 x4 x5/16	"	8.2	"
4 x4 x⅜	"	9.8	"
4 x4 x7/16	"	11.3	"
4 x4 x½	"	12.8	"
4 x4 x⅝	"	15.7	"
4 x4 x¾	"	18.5	"
4½x3 x⅜	"	9.1	"
5 x3 x5/16	"	8.2	"
5 x3 x⅜	"	9.8	"

(Continued on next page)

STEEL FILLET ANGLES

IN STOCK

(Continued)

Size, inches	Length, feet	Est. Wt. per ft.	Ex. for Size	Size, inches	Length, feet	Est. Wt. per ft.	Ex. for Size
5 x3 x1½	30-60	12.8	Base	6 x4 x7/16	30-60	14.3	Base
5 x3½x5/16	"	8.7	"	6 x4 x½	"	16.2	"
5 x3½x⅜	"	10.4	"	6 x4 x9/16	"	18.1	"
5 x3½x7/16	"	12.0	"	6 x4 x⅝	"	20.0	"
5 x3½x½	"	13.6	"	6 x4 x¾	"	23.6	"
5 x3½x⅝	"	16.8	"	6 x6 x⅜	"	14.9	"
5 x4 x⅜	"	11.0	"	6 x6 x7/16	"	17.2	"
5 x4 x½	"	14.5	"	6 x6 x½	"	19.6	"
5 x5 x⅜	"	12.3	"	6 x6 x9/16	"	21.9	"
5 x5 x7/16	"	14.3	"	6 x6 x⅝	"	24.2	"
5 x5 x½	"	16.2	"	6 x6 x¾	"	28.7	"
5 x5 x⅝	"	20.0	"	6 x6 x⅞	"	33.1	"
6 x3½x⅜	"	11.7	"	7 x3½x⅜	"	13.0	.10
6 x3½x7/16	"	13.5	"	7 x3½x½	"	17.0	"
6 x3½x½	"	15.3	"	8 x6 x½	"	23.0	"
6 x3½x⅝	"	18.9	"	8 x6 x¾	"	33.8	"
6 x4 x5/16	"	10.8	"	8 x8 x½	"	26.4	"
6 x4 x⅝	"	12.3	"	8 x8 x¾	"	38.9	"

GALVANIZED FILLET ANGLES

IN STOCK

Size, inches	Size, inches
¾ x ¾ x ⅛—20′0″-22′0″	1½ x 1½ x ¼—20′0″-22′0″
1 x 1 x ⅛— " "	1¾ x 1¾ x ⅛— " "
1 x 1 x 3/16— " "	1¾ x 1¾ x 3/16— " "
1¼ x 1¼ x ⅛— " "	2 x 2 x ⅛— " "
1¼ x 1¼ x 3/16— " "	2 x 2 x 3/16— " "
1¼ x 1¼ x ¼—20′0″	2 x 2 x ¼— " "
1½ x 1½ x ⅛—20′0″-22′0″	2½ x 2½ x ⅛— " "
1½ x 1½ x 3/16— " "	2½ x 2½ x 3/16—20′0″

SQUARE ROOT ANGLES—EQUAL LEG

Size, Inches	Length	Est. Wt. per ft.	Extra for Size	Size, Inches	Length	Est. Wt. per ft.	Extra for Size
¾x¾x⅛	20′0″	.59	.95	1x1x⅛	20′0″	.80	.65

Galvanized Bars, see page 14 and Galvanized Bands page 18.
For warehouse cutting extras on black Angles, see page 153.
Can galvanize any stock Angles in 24 hours after receipt of order.

WRITE FOR PRICES

Bar Steel Bands Hoops
Tires Beef Rail Tool Steel
Concrete Bars—Ring and Special Steel
U. D. Bars and Strip Steel
Plates Heads
Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hangers
Boiler Specialty Tools
Machinery Hand and Power
Tables
Wash Cutting Extra

MILD STEEL BARS

FLATS—IN STOCK

Size	Length Feet	Est. Wt. per ft.	Extra for Size	Size	Length Feet	Est. Wt. per ft.	Extra for Size
1-4x 3/8	12-14-16	.319	1.40	**5-16x** 5½	14-16-30	5.84	.15
1/2	"	.425	.90	6	"	6.38	"
5/8	"	.531	.60	**3-8x** 1/2	12-14-16	.638	.70
3/4	"	.638	.40	5/8	"	.797	.40
7/8	"	.744	.30	3/4	"	.956	.30
1	"	.850	.15	7/8	"	1.112	.20
1 1/8	"	.956	"	1	14-16	1.28	Base
1 1/4	"	1.06	"	1 1/8	"	1.43	"
1 3/8	"	1.17	"	1 1/4	"	1.59	"
1 1/2	"	1.28	"	1 3/8	"	1.75	"
1 3/4	"	1.49	"	1 1/2	"	1.91	"
2	12-14-16-30	1.70	"	1 5/8	12-14-16	2.07	"
2 1/4	12-14-16	1.91	"	1 3/4	14-16	2.23	"
2 1/2	12-14-16-30	2.13	"	2	14-16-30	2.55	"
2 3/4	12-14-16	2.34	"	2 1/4	14-16	2.87	"
3	14-16-30	2.55	"	2 1/2	14-16-30	3.19	"
3 1/4	"	2.76	"	2 3/4	14-16	3.51	"
3 1/2	"	2.98	"	3	14-16-30	3.83	"
3 3/4	14-16	3.19	"	3 1/4	14-16	4.14	"
4	14-16-30	3.40	"	3 1/2	14-16-30	4.46	"
4 1/2	"	3.83	"	4	"	5.10	"
5	"	4.25	"	4 1/2	"	5.74	"
5 1/2	"	4.68	"	5	"	6.38	"
6	"	5.10	"	5 1/2	"	7.01	"
5-16x 1/2	12-14-16	.531	.90	6	"	7.65	"
5/8	"	.664	.60	**7-16x** 3/4	12-16	1.12	.30
3/4	"	.797	.40	7/8	12-14-16	1.30	.20
7/8	"	.929	.30	1	14-16	1.49	Base
1	14-16	1.06	.15	1 1/4	"	1.86	"
1 1/8	"	1.20	"	1 3/8	"	2.05	"
1 1/4	"	1.33	"	1 1/2	"	2.23	"
1 3/8	"	1.46	"	1 3/4	"	2.60	"
1 1/2	"	1.59	"	2	"	2.98	"
1 3/4	"	1.86	"	2 1/4	"	3.35	"
2	14-16-30	2.13	"	2 1/2	"	3.72	"
2 1/4	14-16	2.39	"	2 3/4	"	4.09	"
2 1/2	14-16-30	2.66	"	3	"	4.46	"
2 3/4	14-16	2.92	"	3 1/4	"	4.83	"
3	14-16-30	3.19	"	3 1/2	"	5.21	"
3 1/4	"	3.45	"	4	"	5.95	"
3 1/2	"	3.72	"	4 1/2	"	6.69	"
4	"	4.25	"	5	"	7.44	"
4 1/2	"	4.78	"	5 1/2	"	8.18	"
5	"	5.31	"	6	14-16-30	8.93	"

(Continued on Page 11)

MILD STEEL BARS

FLATS—IN STOCK

(Continued)

Size	Length Feet	Est. Wt. per ft.	Extra for Size
1-2x 5/8	12-14-16	1.06	.40
3/4	"	1.28	.30
7/8	"	1.49	.20
1	14-16	1.70	Base
1 1/8	"	1.91	"
1 1/4	"	2.13	"
1 3/8	"	2.34	"
1 1/2	14-16-30	2.55	"
1 3/4	"	2.98	"
2	"	3.40	"
2 1/4	14-16	3.83	"
2 1/2	14-16-30	4.25	"
2 3/4	14-16	4.68	"
3	14-16-30	5.10	"
3 1/4	14-16	5.53	"
3 1/2	14-16-30	5.95	"
4	"	6.80	"
4 1/2	"	7.65	"
5	"	8.50	"
5 1/2	"	9.35	"
6	"	10.20	"
9-16x3 1/2	16	6.69	"
4	"	7.65	"
4 1/2	"	8.61	"
5	"	9.56	"
6	"	11.48	"
5-8x 3/4	12-14-16	1.59	.30
7/8	"	1.86	.20
1	14-16	2.13	Base
1 1/8	"	2.39	"
1 1/4	"	2.66	"
1 3/8	"	2.92	"
1 1/2	"	3.19	"
1 5/8	"	3.45	"
1 3/4	"	3.72	"
2	"	4.25	"
2 1/4	"	4.78	"
2 1/2	"	5.31	"
2 3/4	"	5.84	"
3	14-16-30	6.38	"
3 1/4	14-16	6.91	"
3 1/2	14-16-30	7.44	"
4	"	8.50	"
4 1/2	"	9.56	"
5	"	10.63	"
5-8x5 1/2	14-16-30	11.69	Base
6	"	12.75	"
3-4x 7/8	12-14-16	2.23	.20
1	"	2.55	Base
1 1/8	14-16	2.87	"
1 1/4	"	3.19	"
1 1/2	"	3.83	"
1 3/4	"	4.46	"
2	"	5.10	"
2 1/4	"	5.74	"
2 1/2	"	6.38	"
2 3/4	"	7.01	"
3	14-16-30	7.65	"
3 1/4	14-16	8.29	"
3 1/2	14-16-30	8.93	"
4	"	10.20	"
4 1/2	"	11.48	"
5	"	12.75	"
5 1/2	"	14.03	"
6	"	15.30	"
7-8x1	14-16	2.98	"
1 1/4	"	3.72	"
1 3/8	"	4.09	"
1 1/2	"	4.46	"
1 3/4	"	5.20	"
2	"	5.95	"
2 1/4	"	6.69	"
2 1/2	"	7.44	"
2 3/4	16	8.18	"
3	14-16-30	8.93	"
3 1/2	14-16	10.41	"
4	14-16-30	11.90	"
4 1/2	"	13.39	"
5	"	14.88	"
5 1/2	"	16.36	"
6	14-16-30	17.85	"
1x1 1/4	14-16	4.25	"
1 1/2	"	5.10	"
1 3/4	"	5.95	"
2	"	6.80	"
2 1/4	"	7.65	"
2 1/2	"	8.50	"
2 3/4	"	9.35	"
3	14-16-30	10.20	"

(Continued on Page 12)

Bar Steel Bands Hoops
Tires Beef Rail Tool Steel
oncrete ars— ring and pecial Steel
C. D. Bars and Strip Steel
Plates Heads
Sheets
Tubes Rivets
olts, Nuts Washers Lugs
Trolley He
Boiler Specialt Tool
Machinery Hand an Powe
Cables
Whee Cutte Ext

MILD STEEL BARS

FLATS—IN STOCK

(Continued)

Size	Length Feet	Est. Wt. per ft.	Extra for Size
1x3¼	14-16	11.05	Base
3½	14-16-30	11.90	"
4	"	13.60	"
4½	"	15.30	"
5	"	17.00	"
5½	"	18.70	"
6	"	20.40	"
1 1-8x2	14-16	7.65	.10
3	14-16-30	11.48	"
4	14-16	15.30	"
5	16	19.13	"
6	"	22.95	"
1 1-4x1½	14-16	6.38	"
1¾	"	7.44	"
2	"	8.50	"
2¼	12-14-16	9.56	"
2½	14-16	10.63	"
2¾	"	11.69	"
3	14-16-30	12.75	"
3¼	"	13.81	"
3½	"	14.88	"
4	"	17.00	"
4½	"	19.13	"
5	14-16-20-30	21.25	"
6	14-16-30	25.50	"
1 1-2x2	14-16	10.20	"
2½	"	12.75	"
3	"	15.30	"
1 1-2x3½	14-16-30	17.85	.10
4	"	20.40	"
4½	"	22.95	"
5	"	25.50	"
5½	16	28.05	"
6	14-16-30	30.60	"
1 3-4x2	16	11.90	"
3	14-16-30	17.85	"
3½	14-16	20.83	"
4	14-16-30	23.80	"
4½	14-16	26.78	"
5	"	29.75	"
6	"	35.70	"
2x2½	"	17.00	"
3	14-16-30	20.40	"
3½	"	23.80	"
4	"	27.20	"
4½	"	30.6	"
5	"	34.0	"
6	"	40.80	"
2 1-2x3	"	25.50	.20
3½	16	29.76	"
4	"	34.06	"
4½	"	38.26	"
5	"	42.50	"
6	"	51.00	"
3x4	"	40.80	"
5	"	51.00	"
6	14-16	61.20	"

For Warehouse Cutting Extras, page 153.

For Stay Bolt Iron, See Pages 98 and 99

GALVANIZED BAR STEEL—16′ LENGTHS

Size	Size	Size
¼"x1"	¼"x1½"	¼"x2"

WRITE FOR PRICES

WELDING RODS

The rods we offer have been fully tested and in actual work have been proven exceptionally suitable for their various uses. We, therefore, recommend them to you and therefore, also,

We Solicit Your Inquiries For Rods

— FOR —

Electrically Welding Mild Steel

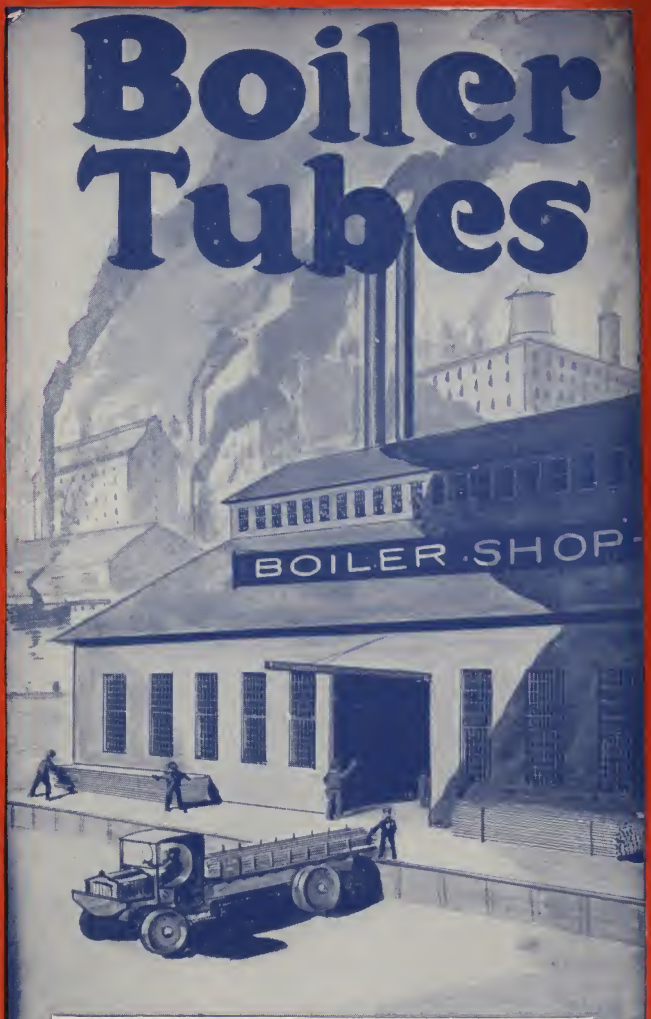
Electrically Welding Cast Iron

Gas Welding Mild Steel

Gas Welding Cast Iron

We will be glad to submit samples, free of charge, so that you can verify our claims for our rods.

Boiler Tubes



IN STOCK in
Shelby Seamless Steel—Lap-weld Steel and Knobbled Charcoal Iron.
Suitable for Stationary and Marine Service, also Locomotive Tubes

MILD STEEL BARS

ROUNDS - IN STOCK

Diam. in.	Length Feet	Est. wt. per Foot	Extra for Size	Diam. In.	Length Feet	Est. wt. per Foot	Extra for Size
3/16	11-12-13-14	.094	2.00	2 3/8	16-20-30	15.06	Base
1/4	12-14-16-18-20-22-30-36-45	.167	1.00	2 1/2	16-20-30	16.69	"
				2 5/8	16-20-30	18.40	"
5/16	12-14-16-18-20-30-36	.261	.70	2 3/4	16-20-30-33	20.19	"
3/8	10-12-16-18-20-30-36-45	.375	.40	2 7/8	16-20-30	22.07	"
7/16	12-16-18-20-30-36	.511	.30	3	16-18-20-33-36	24.03	"
1/2	10-12-16-18-20-30-36	.668	.20	3 1/4	16-18-20-33-36	28.21	.10
9/16	12-16-18-20-30-36	.845	.15	3 3/8	16-20-30	30.42	"
5/8	10-12-14-16-18-20-30-36	1.04	.10	3 1/2	16-20-33	32.71	"
11/16	16-18	1.26	.10	3 3/4	16-18-20-33-36	37.55	.15
3/4	10-12-14-16-18-20-30-36-40	1.50	Base	4	16-18-20-33-36	42.73	"
				4 1/4	16-20-33	48.23	.25
13/16	12-16-18-30-36	1.76	"	4 1/2	16-18-20-33-36	54.07	"
7/8	10-12-16-18-20-30-36-40	2.04	"	4 3/4	10-18-20-33-36	60.25	.35
15/16	16-18-20-36	2.35	"	5	10-18-20-33-36	66.76	"
1	10-12-16-18-20-30-36-40	2.67	"	5 1/4	10-18-20-33-36	73.60	.45
1 1/16	16-18	3.01	"	5 1/2	10-18-20-33-36	80.78	"
1 1/8	10-12-16-18-20-30-36-40	3.38	"	5 3/4	10-18-20-30-36	88.29	.55
1 1/4	10-12-16-18-20-30-36-40	4.17	"	6	10-18-20-30-36	96.14	"
1 5/16	16	4.60	"	6 1/8	10-18-20-22-36	100.18	.65
1 3/8	12-16-18-20-30-36	5.05	"	6 1/4	10-20-22	104.31	"
1 1/2	12-16-18-20-30-36	6.01	"	6 1/2	10-20-22-30	112.82	"
1 5/8	16-18-20-30	7.05	"	6 5/8	10-18-20-22	117.20	.75
1 3/4	12-16-18-20-30-36	8.18	"	6 3/4	10-20-30	121.67	"
1 7/8	16-18-20-30	9.39	"	7	10-20-22-30	130.85	"
2	12-16-18-20-30-36	10.68	"	7 1/8	10-18-20-22	135.56	"
2 1/8	16-20-30	12.06	"	7 1/4	10-20-22	140.36	"
2 1/4	16-18-20-33-36	13.52	"	7 1/2	10-20-22	150.21	"

For Warehouse Cutting Extras, see page 153.

For Stay Bolt Iron, see pages 100 and 101.

WRITE FOR PRICES

Tires
Beef Rail
Tool Steel
oncrete
ars—
ing and
pecial
Steel
D. Bars
and Strip
Steel
Plates
Heads
Sheets
Tubes
Rivets
olts, Nuts
Washers
Lugs
Trolley
Hi
Boiler
Specialti
Tools
Machinery
Hand an
Powe
Tables
Wage
Cuttin
Extr

SQUARES IN STOCK

Size In.	Length Feet	Est. wt. per Foot	Extra for Size
1–4	12–14–16–36	.213	1.00
5–16	12–14–16	.332	.70
3–8	12–14–16–18–20–36	.478	.40
7–16	10–12–14–16–18–30	.651	.30
1–2	12–14–16–18–20–36	.850	.20
9–16	12–14–16	1.076	.15
5–8	12–14–16–18–20–36	1.328	.10
11–16	16	1.607	.10
3–4	12–14–16–18–20–36	1.913	Base
13–16	16	2.245	"
7–8	14–16–18–30–36	2.603	"
15–16	12–16–20–30	2.988	"
1	12–14–16–18–20–36	3.400	"
1⅛	14–16–30	4.303	"
1¼	12–14–16–18–20–36	5.313	"
1⅜	14–16–30	6.428	"
1½	14–16–18–30–36	7.650	"
1⅝	14–16–30	8.978	"
1¾	14–16–30	10.41	"
1⅞	14–16–20	11.95	"
2	14–16–20–30	13.60	"
2¼	14–16–20–30	17.21	"
2½	14–16–20–30	21.25	"
2⅝	16	23.43	"
2¾	14–16–20–30	25.71	"
3	14–16–20–30	30.60	"
3¼	14–16–20–30	35.91	.10
3½	14–16–20–30	41.65	.10
3¾	14–16–20–30	47.81	.15
4	14–16–20–30	54.40	.15
4½	14–16–20–30	68.85	.25
5	14–16–20–22–30	85.00	.35

For Warehouse Cutting Extra, see page 153.

WRITE FOR PRICES

MILD STEEL BARS

Size In.	Length Feet	Est. wt. per foot	Extra for Size	Size In.	Length Feet	Est. wt. per foot	Extra for Size
1/2 x 1/4	12-14-16	.297	1.00	3/4 x 3/8	12-14-16	.668	.30
5/8 x 5/16	"	.464	.50	7/8 x 7/16	"	.909	"
5/8 x 3/8	14-16	.568	"	1 x 1/2	14-16	1.188	"
3/4 x 1/4	"	.435	.40	1 1/4 x 5/8	"	1.857	"

HALF OVALS

Size In.	Length Feet	Est. wt. per foot	Extra for Size	Size In.	Length Feet	Est. wt. per foot	Extra for Size
3/8 x 3/32	12-14-16	.084	2.00	7/8 x 1/4	14-16	.527	.70
1/2 x 1/8	"	.149	1.20	1 x 1/4	"	.594	.40
5/8 x No.12	14-16	.158	"	1 1/4 x 5/16	"	.928	"
5/8 x 5/32	12-14-16	.262	.90	1 1/2 x 3/8	"	1.337	"
3/4 x 7/32	14-16	.396	.70	1 3/4 x 7/16	"	1.82	"
3/4 x 3/16	12-14-16	.334	"	2 x 1/2	"	2.376	"
3/4 x 1/4	14-16	.460	"	2 1/2 x 1/2	"	2.922	"
7/8 x 7/32	12-14-16	.455	"	3 x 3/4	"	5.347	"

HALF ROUNDS

Size In.	Length Feet	Est. wt. per foot	Extra for Size	Size In.	Length Feet	Est. wt. per foot	Extra for Size
5/16	12-14-16	.131	1.75	1	14-16	1.335	.30
3/8	"	.188	1.50	1 1/8	16	1.690	"
1/2	14-16	.334	1.00	1 1/4	14-16	2.086	"
5/8	12-14-16	.522	.70	1 1/2	"	3.004	"
3/4	14-16	.751	.50	1 3/4	"	4.089	"
7/8	"	1.022	"	2	"	5.34	"

HEXAGONS

Size In.	Length Feet	Est. wt. per foot	Extra for Size	Size In.	Length Feet	Est. wt. per foot	Extra for Size
1/2	12-16-18	.736	.35	1 1/4	16-18	4.601	.12 1/2
9/16	16-18	.932	"	1 3/8	"	5.567	"
5/8	12-16-18	1.150	.20	1 1/2	"	6.625	"
3/4	16-18	1.656	.12 1/2	1 5/8	"	7.775	25
7/8	"	2.254	"	1 3/4	"	9.018	"
1	"	2.945	"	1 7/8	18	10.352	"
1 1/8	"	3.727	"	2	16-18	11.778	"

WRITE FOR PRICES

Tires
Beef Rail
Tool Steel
oncrete
ars—
ing and
pecial
Steel
C. D. Bars
and Strip
Steel
Plates
Heads
Sheets
Tubes
Rivets
olts, Nuts
Washers
Lugs
Troller
Ho
Boiler
Specialti
Tools
Machinery
Hand a
Powe
Cables
Whee
Cutte
Extr

STEEL BANDS

In Stock—In Straight Lengths

Size, in.	Straight Lengths	Est. Weight per ft.	Extra for Size	Size, in.	Straight Lengths	Est. Weight per ft.	Extra for Size
3/16x3/8	12-14-16	.239	1.50	10x			
1/2	11-12-14-16	.319	1.00	1 1/2	14-16	.683	.30
5/8	12-14 -16	.398	.70	1 3/4	16' 0"	.797	.30
3/4	"	.478	.55	2	"	.911	.30
7/8	"	.558	.45	2 1/4	"	1.025	.25
1	"	.638	.30	2 1/2	"	1.139	.25
1 1/8	"	.717	.30	2 3/4	"	1.253	.25
1 1/4	"	.797	.30	3	"	1.367	.25
1 3/8	"	.877	.30	3 1/4	"	1.481	.15
1 1/2	"	.956	.25	3 1/2	"	1.595	.15
1 3/4	"	1.12	.25	4	14-16-18	1.822	.15
2	14-16-30	1.28	.25	4 1/2	16' 0"	2.050	.15
2 1/4	14-16	1.43	.20	5	"	2.278	.15
2 1/2	"	1.59	.20	5 1/2	"	2.506	.15
2 3/4	"	1.75	.20	6	"	2.734	.15
3	14-16-30	1.91	.20	7	12-14-16-30	3.189	.15
3 1/4	14-16	2.07	.10	8	14-16-30	3.645	.15
3 1/2	14-16-30	2.23	.10	9	"	4.100	.15
4	14-16-18-30	2.55	.10	12x3/8	14-16	.139	1.70
4 1/2	14-16-30	2.87	.10	1/2	"	.185	1.15
5	"	3.19	.10	5/8	"	.232	.80
5 1/2	"	3.51	.10	3/4	"	.278	.65
5 3/4	16' 0"	3.67	.10	7/8	"	.324	.55
6	14-16-30	3.83	.10	1	"	.371	.50
7	3-40	4.46	Plate	1 1/8	"	.417	.50
8	"	5.10	"	1 1/4	"	.463	.50
10	"	6.38	"	1 3/8	"	.510	.50
12	"	7.66	"	1 1/2	"	.556	.35
0x3/8	14-16	.171	1.60	1 5/8	"	.602	.35
1/2	"	.228	1.05	1 3/4	"	.649	.35
5/8	"	.285	.75	2	"	.741	.35
3/4	"	.342	.60	2 1/4	"	.834	.30
7/8	"	.399	.50	2 1/2	"	.927	.30
1	"	.456	.40	2 3/4	"	1.019	.30
1 1/8	"	.513	.40	3	"	1.112	.30
1 1/4	"	.570	.40	3 1/2	"	1.297	.20
1 3/8	"	.626	.40	4	"	1.482	.20

GALVANIZED BAND STEEL—Straight Lengths

Size, inches	Size, inches	Size, inches
3/16x 3/4—16' 0"	10 ga. x 5/8—16' 0"	10 ga. x 1 1/2—16' 0"
3/16x1 — "	3/4— "	12 ga. x 7/8— "
1 1/4— "	1 — "	1 — "
1 1/2— "	1 1/4— "	1 1/2— "

We can have other sizes galvanized in Chicago within 24 hours after receipt of order.

WRITE FOR PRICES

STEEL HOOPS IN SCROLLS IN STOCK

Size	Est. Wt. per ft.	Extra for Size	Size	Est. Wt. per ft.	Extra for Size
No. 14x ½ in.	.1411	1.30	No. 14x1½ in.	.4233	.40
⅝ in.	.1764	.90	1¾ in.	.4939	.40
¾ in.	.2117	.75	2 in.	.5644	.40
⅞ in.	.2469	.65	2¼ in.	.6350	.35
1 in.	.2822	.55	2½ in.	.7055	.35
1⅛ in.	.3175	.55	2¾ in.	.7761	.35
1¼ in.	.3528	.55	3 in.	.8466	.35

STEEL HOOPS IN COILS

IN STOCK.

Size	Est. Wt. per ft.	Extra for Size	Size	Est. Wt. per ft.	Extra for Size
No. 16x ⅜ in.	.0829	2.40	No. 18x3 in.	.4998	.55
½ in.	.1105	1.50	No. 19x ½ in.	.0714	2.10
⅝ in.	.1381	1.00	⅝ in.	.0893	1.40
¾ in.	.1658	.85	¾ in.	.1071	1.10
⅞ in.	.1934	.75	⅞ in.	.1250	.90
1 in.	.2210	.60	1 in.	.1428	.80
1⅛ in.	.2486	.60	1⅛ in.	.1607	.80
1¼ in.	.2763	.60	1¼ in.	.1785	.80
1½ in.	.3315	.45	1½ in.	.2142	.65
1¾ in.	.3868	.45	1¾ in.	.2499	.65
2 in.	.4420	.45	No. 20x ½ in.	.0595	2.30
2¼ in.	.4973	.40	⅝ in.	.0744	1.60
2½ in.	.5525	.40	¾ in.	.0893	1.30
2¾ in.	.6078	.40	⅞ in.	.1041	1.00
3 in.	.6630	.40	1 in.	.1190	.90
No. 18x ½ in.	.0833	1.90	1⅛ in.	.1339	.90
⅝ in.	.1041	1.20	1¼ in.	.1488	.90
¾ in.	.1250	1.00	1½ in.	.1785	.85
⅞ in.	.1458	.85	No. 22x ½ in.	.0476	3.20
1 in.	.1666	.70	⅝ in.	.0595	2.30
1⅛ in.	.1874	.70	¾ in.	.0714	1.80
1¼ in.	.2083	.70	⅞ in.	.0833	1.50
1½ in.	.2499	.55	1 in.	.0952	1.40
1¾ in.	.2916	.55	1⅛ in.	.1071	1.40
2 in.	.3332	.55	1¼ in.	.1190	1.40
2½ in.	.4165	.55	1½ in.	.1428	1.40
2¾ in.	.4582	.55			

WRITE FOR PRICES

STANDARD RUBBER TIRE CHANNELS

IN STOCK.

Size	Length	Est. Weight per Foot
¾ inch	11′ 6″ and 12′ 6″	0.51
⅞ "	11′ 6″	0.67
1⅛ "	12′ 6″	1.00
1¼ "	11′ 6″ and 12′ 6″	1.20

BEVEL EDGE MILD STEEL

IN STOCK.

Size, In.	Length, Feet	Est. Wt. per ft.	Extra for Size	Size, In.	Length, Feet	Est. Wt. per ft.	Extra for Size
No. 14x ¾	Scrolls	.177	.85	**1-4x**1¼	14-16	.93	.25
12x ¾	"	.232	.75	**5-16x** ⅞	14	.82	.40
⅞	"	.266	.65	1¼	14-16	1.16	.25
3-16x ⅞	14	.49	.55	1½	14	1.42	.25
1	"	.55	.40	**3-8x**1¼	14-16	1.41	.10
1-4x ¾	"	.55	.50	1½	"	1.68	.10
⅞	"	.65	.40				

PACKING HOUSE BEEF RAIL

IN STOCK.

Size (Measurement over all)	Length	Est. Weight per Foot	Extra for Size
½ x 2½ round edge	12′, 15′ and 16′	4.122	Base

STONE SAW BLADES.

IN STOCK.

Size, In	Length, ft	Est. Weight per Foot	Extra for Size
No. 10x4	16′ 0″	1.822	.15
4	18′ 0″	1.822	"
3-16x4	16′ 0″	2.550	.10
4	18′ 0″	2.550	"

WRITE FOR PRICES

STEEL TIRE
ROUND EDGE

IN STOCK.

Size.	Est. Weight Per Foot.	Ex'r for Size
$\frac{3}{16}$x$\frac{3}{4}$, 11&12′	.52	.40
$\frac{7}{8}$, 11′	.60	.25
$\frac{7}{8}$, 12′	.60	"
1, 11′	.679	.15
1, 12′	.679	"
$\frac{1}{4}$x $\frac{3}{4}$, 11′	.712	"
$\frac{3}{4}$, 12′	.712	"
$\frac{7}{8}$, 11′	.818	"
$\frac{7}{8}$, 12′	.818	"
1, 11′	.924	Base
1, 12′	.924	"
$\frac{5}{16}$x $\frac{7}{8}$, 11′	1.046	.15
$\frac{7}{8}$, 12′	1.046	"
1, 11′	1.179	Base
1, 12′	1.179	"
1$\frac{1}{8}$, 11′	1.311	"
1$\frac{1}{8}$, 12′	1.311	"
1$\frac{1}{8}$, 13′6″	1.311	"
1$\frac{1}{4}$, 11′	1.444	"
1$\frac{1}{4}$, 12′	1.444	"
$\frac{3}{8}$x1, 12′6″	1.179	"
1, 13′6″	1.179	"
1$\frac{1}{8}$, 12′6″	1.601	"
1$\frac{1}{8}$, 13′6″	1.601	"
1$\frac{1}{4}$, 12′6″	1.761	"
1$\frac{1}{4}$, 13′6″	1.761	"
1$\frac{3}{8}$, 12′6″	1.92	"
1$\frac{3}{8}$, 13′6″	1.92	"
1$\frac{1}{2}$, 12′	2.08	"
$\frac{3}{8}$x1$\frac{1}{2}$, 12′6″	2.08	Base
1$\frac{1}{2}$, 13′6″	2.08	"
1$\frac{1}{2}$, 15′	2.08	"
1$\frac{3}{4}$, 12′	2.398	"
1$\frac{3}{4}$, 15′	2.398	"
2, 12′	2.717	"
2, 15′	2.717	"
2$\frac{1}{2}$, 12′	3.355	"
2$\frac{1}{2}$, 15′	3.355	"
3, 12′	3.992	"
3, 15′	3.992	"
4, 12′	5.267	"
4, 15′	5.267	"
$\frac{7}{16}$x1$\frac{3}{8}$, 12′6″	2.273	"
1$\frac{3}{8}$, 13′6″	2.273	"
1$\frac{1}{2}$, 12′6″	2.459	"
1$\frac{1}{2}$, 13′6″	2.459	"
2, 12′	3.202	"
2, 15′	3.202	"
3, 12′	4.69	"
3, 15′	4.69	"
$\frac{1}{2}$x1$\frac{1}{2}$, 10′6″	2.847	"
1$\frac{1}{2}$, 12′	2.847	"
1$\frac{1}{2}$, 13′6″	2.847	"
1$\frac{1}{2}$, 15′	2.847	"
1$\frac{5}{8}$, 10′6″	3.06	"
1$\frac{5}{8}$, 12′	3.06	"
1$\frac{5}{8}$, 13′6″	3.06	"
1$\frac{5}{8}$, 15′	3.06	"
$\frac{1}{2}$x1$\frac{3}{4}$, 10′6″	3.272	Base
1$\frac{3}{4}$, 12′	3.272	"
1$\frac{3}{4}$, 13′6″	3.272	"
1$\frac{3}{4}$, 15′	3.272	"
2, 10′6″	3.697	"
2, 12′	3.697	"
2, 13′6″	3.697	"
2, 15′	3.697	"
2$\frac{1}{4}$, 12′	4.122	"
2$\frac{1}{4}$, 15′	4.122	"
2$\frac{1}{2}$, 10′6″	4.547	"
2$\frac{1}{2}$, 12′	4.547	"
2$\frac{1}{2}$ 15′	4.547	"
3, 10′6″	5.397	"
3, 12′	5.397	"
3, 15′	5.397	"
3$\frac{1}{2}$, 12′	6.247	"
3$\frac{1}{2}$, 15′	6.247	"
4, 10′6″	7.097	"
4, 12′	7.097	"
4, 15′	7.097	"
$\frac{9}{16}$x1$\frac{1}{2}$, 10′6″	3.291	"
1$\frac{1}{2}$, 12′	3.291	"
1$\frac{1}{2}$, 13′6″	3.291	"
1$\frac{1}{2}$, 15′	3.291	"
1$\frac{5}{8}$, 10′6″	3.53	"
1$\frac{5}{8}$, 12′	3.53	"

"For other Tires, see pages 20 and 22"

For measurements see bottom of page 20.

All above tires iron finish. Dimensions shown are face measurement.

Lengths of Tire Required for Standard Wheels.

Wheel Size.	3′ 0″	3′ 2″	3′ 4″	3′ 6″	3′ 8″	3′ 10″	4′ 0″	4′ 2″	4′ 4″	4′ 6″	4′ 8″
Lgth. of Tire requi'd	10′0″	10′ 6″	11′0″	12′ 0″	12′ 0″	13′ 6″	13′ 6″	13′ 6″	15′ 0″	15′0″	15′ 0″

(Continued on page 20)

WRITE FOR PRICES

IN STOCK—Continued.

Size	Est. Wt. per Foot	Extra for Size
6-18x1⅝, 13' 6"	3.53	Base
1⅝, 15'	3.53	"
1¾, 10' 6"	3.77	"
1¾, 12'	3.77	"
1¾, 13' 6"	3.77	"
1¾, 15'	3.77	"
2, 10' 6"	4.25	"
2, 12'	4.25	"
2, 13' 6"	4.25	"
2, 15'	4.25	"
6-8x1½, 12'	3.65	"
1½, 15'	3.65	"
1⅝, 10' 6"	3.92	"
1⅝, 12'	3.92	"
1⅝, 13' 6"	3.92	"
1⅝, 15'	3.92	"
1¾, 10' 6"	4.18	"
1¾, 12'	4.18	"
1¾, 13' 6"	4.18	"
1¾, 15'	4.18	"
2, 10' 6"	4.72	"
2, 12'	4.72	"
2, 13' 6"	4.72	"
2, 15'	4.72	"
2¼, 10' 6"	5.25	"
2¼, 12'	5.25	"
2¼, 13' 6"	5.25	"
2¼, 15'	5.25	"
2½, 10' 6"	5.78	"
2½, 12'	5.78	"
2½, 13' 6"	5.78	"
2½, 15'	5.78	"
3, 10' 6"	6.84	"
3, 12'	6.84	"
3, 15'	6.84	"
5-8x3½, 10' 6"	7.90	Base
3½, 12'	7.90	"
3½, 15'	7.90	"
4, 12'	8.96	"
4, 15'	8.96	"
3-4x1½, 12'	4.38	"
1½, 13' 6"	4.38	"
1½, 15'	4.38	"
1¾, 10' 6"	5.01	"
1¾, 12'	5.01	"
1¾, 13' 6"	5.01	"
1¾, 15'	5.01	"
2, 10' 6"	5.65	"
2, 12'	5.65	"
2, 13' 6"	5.65	"
2, 15'	5.65	"
2¼, 10' 6"	6.29	"
2¼, 12'	6.29	"
2¼, 13' 6"	6.29	"
2¼, 15'	6.29	"
2½, 10' 6"	6.92	"
2½, 12'	6.92	"
2½, 13' 6"	6.92	"
2½, 15'	6.92	"
2¾, 10' 6"	7.56	"
2¾, 12'	7.56	"
2¾, 13' 6"	7.56	"
2¾, 15'	7.56	"
3, 10' 6"	8.20	"
3, 12'	8.20	"
3, 13' 6"	8.20	"
3, 15'	8.20	"
3½, 10' 6"	9.48	"
3½, 12'	9.48	"
3½, 15'	9.48	"
3-4x4, 10' 6"	10.75	Base
4, 12'	10.75	"
4, 15'	10.75	"
7-8x2¼, 10' 6"	7.46	"
2¼, 12'	7.46	"
2¼, 13' 6"	7.46	"
2¼, 15'	7.46	"
2½, 10' 6"	8.21	"
2½, 12'	8.21	"
2½, 13' 6"	8.21	"
2½, 15'	8.21	"
2¾, 10' 6"	8.95	"
2¾, 12'	8.95	"
2¾, 13' 6"	8.95	"
2¾, 15'	8.95	"
3, 10' 6"	9.70	"
3, 12'	9.70	"
3, 13' 6"	9.70	"
3, 15'	9.70	"
4, 10' 6"	12.67	"
4, 12'	12.67	"
4, 15'	12.67	"
1x2½, 10' 6"	9.37	"
2½, 12'	9.37	"
2½, 15'	9.37	"
2¾, 12'	10.22	"
2¾, 15'	10.22	"
3, 10' 6"	11.07	"
3, 12'	11.07	"
3, 15'	11.07	"
3½, 10' 6"	12.77	"
3½, 15'	12.77	"
4, 10' 6"	14.47	"
4, 12'	14.47	"
4, 15'	14.47	"

All above tires are iron finish. Dimensions shown are face measurements. For lengths of tires for Standard wheels, see page 19.

To obtain width over all, for any thickness, add to face measure of flats the increment given for that thickness in table below.

Face Measure, Inches	THICKNESS IN INCHES.										
	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
Increment	3/32	1/8	5/32	3/16	7/32	1/4	5/16	5/16	5/16	3/8	3/8

WRITE FOR PRICES

SCULLY TOOL STEEL

STRONG & TENACIOUS

Suitable for Mining Drills, Quarry Tools, Axes, Hammers, Sledges, Hand Chisels and generally when a hard surface, combined with tenacity, is required. **Forging done at light red and hardening at cherry red. Welding is easily done with borax and sand.**

IN STOCK.

Size	Lgth.	Est. Wt. per ft.	Extra for Size per lb.	Size	Length	Est. Wt. per ft.	Extra for Size per lb.
½ Oct.	Rand'm	.70	½ ct.	1⅛ Oct.	20 ft.	3.56	Base
⅝ Oct.	"	1.10	Base	1¼ Oct.	"	4.40	"
¾ Oct.	"	1.58	"	1½ Oct.	"	6.34	"
⅞ Oct.	"	2.16	"	1⅝ Oct.	"	7.32	"
1 Oct.	"	2.82	"	1¾ Oct.	"	8.64	"
½ Sq.	Rand'm	.85	½ ct.	1 Sq.	Random	3.40	"
¾ Sq.	"	1.91	Base	1¼ Sq.	"	5.31	"
⅞ Sq.	"	2.60	"	1½ Sq.	"	7.65	"
				2 Sq.	"	13.60	"

We are in position to supply other sizes, other shapes and other grades of Tool Steel promptly.

WRITE FOR PRICES

oncrete
ars—
ring and
pecial
Steel
D. Bars
and Strip
Steel
Plates
Heads
Sheets
Tubes
Rivets
olts, Nuts
Washers
Lugs
Trolley
Hoists
Straps
Ch
Boiler
Specialty
Tools
Machinery
Hand a
Powe
Tables
Whse
Cutti
Extr

DEFORMED BARS—IN STOCK

(Sometimes termed "Corrugated Bars")

For Reinforcing Concrete

Made from new Billet Stock—Can cut to length, also bend as required.

Round				Square			
Size In.	Area in Sq. In.	Weight Per Ft.	Extra For Size	Size In.	Area in Sq. In.	Weight Per Ft.	Extra For Size
3/8	.11	.38	.40	1/2	.25	.86	.20
1/2	.19	.66	.20	1	1.00	3.43	Base
5/8	.30	1.05	.10	1 1/8	1.26	4.34	"
3/4	.44	1.52	Base	1 1/4	1.55	5.35	"
7/8	.60	2.06	"				
1	.78	2.69	"				

Stock lengths are 20′-30′-36′-40′-50′ and 60′.
Bending extras—on request.

CUTTING EXTRAS FROM STOCK

All sizes 3′ 0″ and longer..... No extra.
All sizes under 3′ 0″..... .20 per 100 lbs. extra.

The above cutting charges are subject to change without notice.

WRITE FOR PRICES

SPRING STEEL—ROUND EDGE

Open Hearth—S. A. E. 1095

Size	Wt. per Feet	Extra for Size	Lgth. Feet	Size	Wt. per Feet	Extra for Size	Lgth. Feet
1/8" x 3/4"	.311	.75	16				
7/8"	.364	.75	16	5/16" x 1 3/4"	1.809	Base	16
1"	.417	.75	16	2"	2.075	Base	16
1 1/4"	.523	.75	16	2 1/4"	2.341	Base	16
1 1/2"	.629	.75	16	2 1/2"	2.606	Base	16
2"	.842	.75	16	3"	3.138	Base	16
3"	1.275	.75	14	3/8" x 1 1/2"	1.841	Base	16
3/16" x 1"	.62	.25	16	1 3/4"	2.159	Base	16
1 1/4"	.779	.25	16	2"	2.478	Base	16
1 1/2"	.938	.25	16	2 1/4"	2.797	Base	16
2"	1.257	.25	16	2 1/2"	3.116	Base	16
1/4" x 1"	.818	.10	16	3"	3.753	Base	16
1 1/4"	1.03	Base	16	3 1/2"	4.391	Base	16
1 1/2"	1.243	Base	16	4"	5.028	Base	16
1 3/4"	1.455	Base	16	5"	6.303	Base	16
2"	1.668	Base	16	7/16" x 3"	4.365	Base	16
2 1/4"	1.88	Base	16	4"	5.852	Base	16
2 1/2"	2.093	Base	16	1/2" x 3"	4.972	Base	16
3"	2.518	Base	16	3 1/2"	5.822	Base	16
4 1/2"	3.793	Base	16	4"	6.672	Base	16
No. 2x2"	1.93	Base	16				

For Resisting Corrosion

USE

"SCULLY"

Copper Bearing Plates

AND

"KEYSTONE"

Copper Bearing Sheets

WRITE FOR PRICES

Concrete Bars—Spring and Special Steel
O. D. Bars and Strip Steel
Plates Heads
Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hoists Strap Ch
Boiler Specialty Tool
Machinery Hand an Powe
Tables
Whse. Cutting Extra

ROUNDS

Drop Forging Steel—S. A. E. Specifications

Size Inches	Weight per Foot Pounds	Extra for Size c per lb.	LENGHTS IN STOCK (Feet) CHICAGO .15 to .25% Carbon S. A. E. 1020	.20 to .30% Carbon S. A. E. 1025	.30 to .40% Carbon S. A. E. 1035	.40 to .50% Carbon S. A. E. 1045
1/2	0.668	.20	16-18	16	16	.....
5/8	1.04	.10	"	16	16	.....
3/4	1.50	Base	"	16	16	16
7/8	2.04	"	"	16	16	16
1	2.67	"	"	16	16	16
1 1/16	3.01	"	"	.....	16	.....
1 1/8	3.38	"	"	16	16	16
1 1/4	4.17	"	"	16	16	16
1 3/8	5.05	"	"	16	16	16
1 1/2	6.01	"	"	16	16	16
1 5/8	7.05	"	"	16	16	16
1 3/4	8.18	"	"	16	16	16
1 7/8	9.39	"	"	16	16	16
2	10.68	"	"	16	16	16
2 1/8	12.06	"	"	16	16	16
2 1/4	13.52	"	"	16	16	16
2 3/8	15.06	"	"	16	16	16
2 1/2	16.69	"	"	16	16	16
2 5/8	18.40	"	"	16	16	16
2 3/4	20.19	"	"	16	16	16
2 7/8	22.07	"	.....	.....	16	16
3	24.03	"	20	20	20	20
3 1/4	28.21	.10	20	20	20	20
3 1/2	32.71	.10	20	20	20	20
3 3/4	37.55	.15	20	20	20	20
4	42.73	.15	20	20	20	20
4 1/4	48.23	.25	20	20	20	20
4 1/2	54.07	.25	20	20	20	20
4 3/4	60.25	.35	20	20	20	20
5	66.76	.35	20	20	20	20
5 1/4	73.60	.45	20	20	20	20
5 1/2	80.78	.45	20	20	20	16 & 20
5 3/4	88.29	.55	20	20	20	20
6	96.13	.55	20	20	20	20

For cutting extra see page 153.

ROUNDS

Drift Pin Steel—Two Qualities—Open Hearth Steel .60 to .75% Carbon—Open Hearth Drop Forging Steel .80 to 95% Carbon

Size	Weight per Foot	Warehouse Extra for Size	LENGTHS IN STOCK (Feet)	
			.60 to 75% Carbon	.80 to 95% Carbon
9/16	0.845	.15	.....	10
11/16	1.26	.10	10	10
13/16	1.76	Base	.....	10
15/16	2.35	"	.....	10
1 1/16	3.01	"	10	10

ROUNDS

Open Hearth Welding Quality .08 to 12% Carbon

Size	Weight per Foot	Warehouse Extra for Size	Lengths in Stock (Feet)	Size	Weight per Foot	Warehouse Extra for Size	Lengths in Stock (Feet)
1/2	0.668	.20	16	1 1/4	4.17	Base	16
5/8	1.04	.10	16	1 1/2	6.01	"	16
3/4	1.50	Base	16	1 3/4	8.18	"	16
7/8	2.04	"	16	2	10.68	"	16
1	2.67	"	16	.....	.....	.....	.....

ROUNDS

Free Cutting Steel

Size	Weight per Foot	Warehouse Extra for Size	LENGTHS IN STOCK (Feet)	Size	Weight per Foot	Warehouse Extra for Size	LENGHTS IN STOCK (Feet)
5/16	0.261	.70	16	2	10.68	Base	16
3/8	0.375	.40	16	2 1/8	12.06	"	16
7/16	0.511	.30	16	2 1/4	13.52	"	16
1/2	0.668	.20	16	2 3/8	15.06	"	16
5/8	1.04	.10	16	2 1/2	16.69	"	16
11/16	1.26	.10	16	2 5/8	18.40	"	16
3/4	1.50	Base	16	2 3/4	20.19	"	16
7/8	2.04	"	16	3	24.03	"	16
15/16	2.35	"	16	3 1/4	28.21	.10	16
1	2.67	"	16	3 1/2	32.71	.10	16
1 1/16	3.01	"	16	3 3/4	37.55	.15	16
1 1/8	3.38	"	16	4	42.73	.15	16
1 1/4	4.17	"	16	4 1/4	48.23	.25	16
1 3/8	5.05	"	16	4 1/2	54.07	.25	16
1 1/2	6.01	"	16	4 3/4	60.25	.35	16 & 20
1 9/16	6.52	"	7	5	66.76	.35	16
1 5/8	7.05	"	16	5 1/4	73.60	.45	16 & 20
1 11/16	7.60	"	24	5 1/2	80.78	.45	16 & 20
1 3/4	8.18	"	16	5 3/4	88.29	.55	16 & 20
1 7/8	9.39	"	16	6	96.13	.55	10 & 20

For cutting extra, see page 153.

WRITE FOR PRICES

C. D. Bars and Strip Steel
Plates Heads
Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hoists Strap Ch
Boiler Specialty Tools
Machinery Hand and Power
Tables
Wire Cutting Extra

ALLOY STEEL ROUNDS

S. A. E. Specifications

Size Inches	Weight per Foot Pounds	Extra for Size c per lb.	LENGTHS IN CHICAGO STOCK (Feet)					
			3½% NICKEL STEEL			Nickel Chromium Steel 1 to 1½% Ni, .45 to 75% Cr.		
			.15 to .25c S.A.E. 2320	.25 to .35c S.A.E. 2330	.35 to .45c S.A.E. 2340	.15 to .25c S.A.E. 3120	.25 to .35c S.A.E. 3130	.35 to .45c S.A.E. 3140
¼	0.167	1.00	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
5/16	0.261	.70	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
⅜	0.375	.40	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
7/16	0.511	.30	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
½	0.668	.20	12 to 18	12 to 18	.....	12 to 18	12 to 18	12 to 18
9/16	0.845	.15	.....	12 to 18	.....	.....	.....	.....
⅝	1.04	.10	12 to 18	12 to 18	.....	12 to 18	12 to 18	12 to 18
11/16	1.26	.10	.....	.....	.....	12 to 18	.....	.....
¾	1.50	Base	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
⅞	2.04	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1	2.67	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1 1/16	3.01	"	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
1⅛	3.38	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1¼	4.17	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1 5/16	4.60	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1⅜	5.05	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1 7/16	5.52	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1½	6.01	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1 9/16	6.52	"	.....	.....	.....	12 to 18	.....	.....
1⅝	7.05	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1¾	8.18	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
1⅞	9.39	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2	10.68	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2 1/16	11.36	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2⅛	12.06	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2¼	13.52	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2⅜	15.06	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2½	16.69	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2⅝	18.40	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
2¾	20.19	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 16	12 to 18
2⅞	22.07	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
3	24.03	"	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
3⅛	26.08	.10	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
3¼	28.21	.10	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
3 5/16	29.30	.10	12 to 18	12 to 18	.....	12 to 18	12 to 18	.....
3½	32.71	.10	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
3¾	37.55	.15	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
4	42.73	.15	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
4¼	48.23	.25	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
4½	54.07	.25	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
4¾	60.25	.35	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
5	66.76	.35	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
5¼	73.60	.45	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
5½	80.78	.45	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
5¾	88.29	.55	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18
6	96.13	.55	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18	12 to 18

Purposes for which the above Bars are recommended are shown on page 29.
For cutting extra, see page 153. (Continued on next page)

ALLOY STEEL ROUNDS

(Continued)

.15 to .25% Carbon, for Transmission Gears, Differential Gears, Pinions, One Piece Cam Shafts, Push Rods, Valve Stems, Wrist Pins, and any other purpose where case hardening is required. Also for general purposes.

.25 to .35% Carbon, for Front and Rear Axles, Steering Rods, Knuckles, Connecting Rods, Radius Rods, Spindles, Stud Bolts, etc.

.30 to .45% Carbon, for Drive Shafts, Transmission Shafts, Jack Shafts, Rear Axles, etc.

.40 to .50% Carbon, for Oil Tempered Gears, Pinions, etc.

SQUARES

Drop Forging Steel .15 to .25% Carbon S. A. E. 1020

Size	Weight per Foot	Warehouse Extra for Size	Lengths in Stock (Feet)	Size	Weight per Foot	Warehouse Extra for Size	Lengths in Stock (Feet)
1	3.40	Base	16	2¼	17.21	Base	16
1⅛	4.30	"	16	2½	21.25	"	16
1¼	5.31	"	16	2¾	25.71	"	16 & 30
1⅜	6.43	"	16	3	30.60	"	16
1½	7.65	"	16	3¼	35.91	.10	16
1⅝	8.98	"	16	3½	41.65	.10	16
1¾	10.41	"	16	3¾	47.81	.15	16
2	13.60	"	16	4	54.40	.15	16

FORGING BILLETS

Drop Forging Steel

Size	Weight per Foot	Warehouse Extra for Size	LENGTHS IN STOCK (Feet)	
			.15 to .25% Carbon S. A. E. 1020	.30 to .40% Carbon S. A. E. 1035
4x4	54.4	Base	4, 6, 8, 10, 12	4, 6, 8, 10, 12
4½x4½	68.85	"	.....	4, 6, 8, 10, 12
4x6	81.6	"	4, 6, 8, 10, 12	.....
4x8	108.8	"	4, 6, 8, 10, 12	.....
6x6	122.4	"	4, 6, 8, 10, 12	4, 6, 8, 10, 12
6x8	163.2	"	4, 6, 8, 10, 12	4, 6, 8, 10, 12
8x8	217.6	"	4, 6, 8, 10, 12	4, 6, 8, 10, 12
12x3	122.4	"	4, 6 & 10	.....
12x4	163.2	"	4, 6 & 10	.....

For cutting extra, see page 153.

WRITE FOR PRICES

Di. in In.	Lengths In Stock	Wt. per ft. in lbs.	Ex. per 100 lbs.	Di. in In.	Lengths In Stock	Wt. per ft. in lbs.	Ex. per 100 lbs.
1/8	12	.0414	3.00	2 5/8	10-12-14-16-18-20-22	18.41	.15
3/16	10-12-14	.094	2.00	2 11/16	10-12-14-16-18-20-22	19.29	.15
1/4	10-12-14-16	.167	1.25	2 3/4	10-12-14-16-18-20	20.21	.15
5/16	10-12-14-16	.260	1.00	2 13/16	10-12-14-16-18-20	21.09	.15
3/8	10-12-14-16	.375	.90	2 7/8	12-16-20	22.09	.15
7/16	10-12-16-18-20	.511	.70	2 15/16	10-12-14-16-18-20-22	23.04	.35
1/2	10-12-14-16-18-20	.667	.70	3	10-12-14-16-18-20-22	24.05	.35
9/16	10-12-14-16-18-20	.845	.70	3 1/16	16-20	25.04	.35
5/8	10-12-14-16-18-20	1.04	.55	3 1/8	10-12-16-18-20	26.09	.35
11/16	10-12-14-16-18-20	1.26	.40	3 3/16	10-12-14-16-18-20-22	27.13	.35
3/4	10-12-14-16-18-20-22	1.50	.40	3 1/4	10-12-16-18-20	28.20	.35
13/16	10-12-14-16-18-20-22	1.76	.35	3 5/16	16-20	29.30	.35
7/8	10-12-14-16-18-20-22	2.04	.35	3 3/8	16-20	30.43	.35
15/16	10-12-14-16-18-20-22	2.35	.35	3 7/16	10-12-14-16-18-20-22	31.55	.50
1	10-12-14-16-18-20-22	2.67	.35	3 1/2	10-12-14-16-18-20-22	32.73	.50
1 1/16	10-12-14-16-18-20-22	3.01	.35	3 9/16	16-20	33.89	.50
1 1/8	10-12-14-16-18-20-22	3.38	.30	3 5/8	16-20	35.09	.50
1 3/16	10-12-14-16-18-20-22	3.77	.30	3 11/16	16-18-20-22	36.26	.50
1 1/4	10-12-14-16-18-20-22	4.17	.30	3 3/4	16-20	37.57	.50
1 5/16	10-12-14-16-18-20-22	4.60	.30	3 13/16	16-20	38.81	.50
1 3/8	10-12-14-16-18-20-22	5.05	.30	3 7/8	16-20	40.04	.50
1 7/16	10-12-14-16-18-20-22	5.52	.30	3 15/16	10-12-14-16-18-20-22	41.40	.80
1 1/2	10-12-14-16-18-20-22	6.01	.25	4	12-16-18-20-22	42.75	.80
1 9/16	10-12-14-16-18-20-22	6.52	.25	4 1/8	16-20	45.44	.80
1 5/8	10-12-14-16-18-20-22	7.05	.25	4 3/16	12-16-18-20-22	46.83	.80
1 11/16	10-12-14-16-18-20-22	7.60	.25	4 1/4	16-20	48.26	.80
1 3/4	10-12-14-16-18-20-22	8.18	.25	4 3/8	16-20	51.80	.80
1 13/16	10-12-14-16-18-20-22	8.77	.25	4 7/16	12-14-16-18-20-22-24	52.58	1.00
1 7/8	10-12-14-16-18-20-22	9.39	.25	4 1/2	16-20	54.00	1.00
1 15/16	10-12-14-16-18-20-22	10.02	.25	4 11/16	16-18-20-22	58.68	1.00
2	10-12-14-16-18-20-22	10.68	.25	4 3/4	16-20	60.88	1.00
2 1/16	16-18-20	11.35	.25	4 13/16	12-14-16-18-20-22	65.10	1.25
2 1/8	10-12-14-16-18-20-22	12.06	.25	5	12-14-16-18-20-22	66.76	1.25
2 3/16	10-12-14-16-18-20-22	12.78	.25	5 1/16	16-18-20-22	78.95	1.75
2 1/4	10-12-14-16-18-20-22	13.52	.15	5 1/2	16-18-20	80.77	1.75
2 5/16	16-18-20	14.28	.15	5 11/16	16-18-20-22	94.14	2.25
2 3/8	10-12-14-16-18-20	15.06	.15	6	16-20	96.00	2.25
2 7/16	10-12-14-16-18-20-22	15.87	.15	6 1/4	20	104.31	2.25
2 1/2	10-12-14-16-18-20-22	16.70	.15	6 1/2	20	112.82	3.00
2 9/16	10-12-14-16-18-20-22	17.53	.15				

For other Extras, see pages 30 and 31.

For Keys, Splines, Square Shafts, etc.

Size in Inches	Weight per Foot	Net Extra for Size	Lengths in Stock Feet	Size in Inches	Weight per Foot	Net Extra for Size	Lengths in Stock Feet
1/8	.053	5.00	12	1 1/4	5.31	.70	12-16
9/16	.119	4.00	12-14	1 5/16	5.86	.70	12-16
1/4	.213	2.50	10-12	1 3/8	6.43	.90	12-16
5/16	.332	2.50	10-12	1 7/16	7.03	.90	12-16
3/8	.478	1.75	10-12	1 1/2	7.65	.90	12-16
7/16	.651	1.75	12	1 9/16	8.30	.90	12-16
1/2	.850	1.15	10-12	1 5/8	8.98	.90	12-16
9/16	1.08	1.00	12	1 11/16	9.68	.90	12-16
5/8	1.33	.85	12	1 3/4	10.41	.90	12-16
11/16	1.61	.75	10-12	1 7/8	11.95	.90	12-16
3/4	1.91	.75	12	1 15/16	12.76	.90	12-16
13/16	2.24	.75	12	2	13.60	.90	12-16
7/8	2.60	.70	12	2 1/8	15.35	1.25	12
15/16	2.99	.70	12	2 3/16	16.27	1.25	12
1	3.40	.70	10-12-16	2 1/4	17.21	1.25	12
1 1/16	3.84	.70	12-16	2 1/2	21.25	1.50	12
1 1/8	4.30	.70	12-16	2 3/4	25.71	1.50	12
1 3/16	4.80	.70	12-16	3	30.60	1.50	12

Size in Inches	Weight per Foot	Net Extra for Size	Lengths in Stock Feet	Size in Inches	Weight per Foot	Net Extra for Size	Lengths in Stock Feet
3/16	.102	4.00	10-12	1 3/16	4.15	.45	12-16
7/32	.14	4.00	10-12	1 1/4	4.60	.45	12-16
1/4	.183	2.50	10-12	1 5/16	5.07	.65	16
5/16	.290	2.50	10-12	1 3/8	5.57	.65	12-16
3/8	.41	1.75	10-12	1 7/16	6.07	.65	12-16
7/16	.56	1.25	10-12	1 1/2	6.62	.90	12-14-16
1/2	.74	.90	10-12	1 9/16	7.19	.90	12-16
9/16	.93	.80	10-12	1 5/8	7.78	.90	12-16
5/8	1.15	.70	10-12-14	1 11/16	8.37	.90	12-16
11/16	1.40	.60	10-12	1 3/4	9.02	.90	12-16
3/4	1.66	.60	10-12	1 13/16	9.67	.90	12-16
13/16	1.94	.60	10-12-16	1 7/8	10.35	.90	12-16
7/8	2.25	.55	10-12	1 15/16	11.35	.90	12-16
15/16	2.58	.55	10-12	2	11.78	.90	12-16
1	2.94	.50	12-16	2 1/8	13.30	1.25	16
1 1/16	3.32	.50	16	2 3/16	14.09	1.25	12
1 1/8	3.73	.45	12-16	2 1/4	14.91	1.25	12

For other extras, see pages 30 and 31.

C. D. Bars and Strip Steel
Plates Heads
Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Ha
Boiler Specialty Tool
Machinery Hand an Powe
Tables
Wire Cutting Extra

COLD ROLLED FLATS IN STOCK

EXTRAS ON FLATS PER 100 LBS.

Thickness in Inches	WIDTH, INCHES						
	¼″	5/16″ to ½″	9/16″ to 23/32″	¾″ to 1″	1 1/16″ to 1½″	1 9/16″ to 3″	Wider than 3″
⅛″ and 5/32″	$8.50	$6.50	$5.50	$4.50	$3.50	$3.00	$3.50
3/16″ to 1/16″	7.75	5.75	5.25	3.75	2.75	1.75	3.00
⅜″ to 7/16″	.....	4.75	4.25	2.75	2.75	1.75	2.50
7/16″ to 9/16″	.....	.....	3.25	1.75	1.75	1.50	2.50
⅝″ to 11/16″	.....	.....	2.75	1.50	1.50	1.50	2.50
¾″ to 13/16″	.....	.....	.....	1.50	1.50	1.50	2.50
1″ to 1 7/16″	.....	.....	.....	.....	1.50	1.50	2.50
1½″ to 1 11/16″	.....	.....	.....	.....	.....	1.50	2.50
1¾″ to 1 15/16″	.....	.....	.....	.....	.....	1.50	2.50
2″ to 2 15/16″	.....	.....	.....	.....	.....	1.50	2.50

Stock Lengths 12 feet.

Will cut any of above items to length, prices quoted on request.

WAREHOUSE EXTRAS

Rounds, Squares, Hexagons and Flats Quantity Extras

Less than 500# but not less than 300# of a size .50 cwt. extra
" " 300# " " " " 100# " " .75 " "
" " 100# of a size 1.00 " "

EXTRAS FOR BURLAPPING

Burlapping full length (Min. 50c).....50c cwt.
Boxing (Min. 75c).....75c cwt.
Cutting Extras, see page 33.
Milled Key-Seats at reasonable rates.

MILL EXTRAS for pump and piston rods, accuracy, chamferring differentials, boxing and burlapping quoted on request.

For other Extras, see page 31.

WAREHOUSE CUTTING EXTRAS ON COLD FINISHED BARS AND SHAFTING

ROUNDS			SQUARES		
Diameter	First Cut	Second Addit'l Cuts	Diameter	First Cut	Second Addit'l Cuts
3/16" to 1" inc.	$.12	$.05	1" and under....	$.15	$.05
1 1/16" " 1 1/2" "	.15	.08	1 1/8" to 1 1/2" inc.	.20	.08
1 9/16" " 2" "	.20	.10	1 5/8" " 2" "	.25	.10
2 1/16" " 2 1/2" "	.25	.12	2 1/4" " 2 1/2" "	.30	.15
2 9/16" " 3" "	.30	.15	2 3/4" " 3" "	.35	.20
3 1/16" " 3 1/2" "	.35	.20	HEXAGONS		
3 9/16" " 4" "	.40	.30	1" and under....	$.15	$.05
4 1/8" " 4 1/2" "	.50	.40	1 1/4" to 1 1/2" inc.	.20	.08
4 11/16" " 5" "	.60	.45	1 5/8" " 2" "	.25	.10
5 1/16" " 6" "	.75	.60	2 1/8" " 2 1/2" "	.30	.15
6 1/4" " 6 1/2" "	.90	.80	2 3/4" " 3" "	.35	.20

FLATS—EXTRAS FOR FIRST CUTS

Widths	THICKNESS												
	1/8 to 3/16	1/4 to 5/16	3/8 to 7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2
1" and narrower	.12	.12	.12	.12	.12	.12	.15	...	...	...	...	...	...
1 1/8" to 1 1/4" inc.	.12	.12	.12	.12	.12	.15	.15	.15	...	...	...	...	...
1 1/2" "	.12	.12	.12	.12	.15	.15	.15	.15	.15	.20	...	...	...
1 3/4" "	.12	.12	.15	.15	.15	.15	.15	.20	.20	.20	.20	...	...
2" "	.12	.12	.15	.15	.15	.15	.15	.20	.20	.20	.20	.25	...
2 1/4" "	.12	.12	.15	.15	.15	.20	.20	.20	.20	.20	.25	.25	.25
2 1/2" "	.12	.12	.15	.15	.15	.20	.20	.20	.20	.20	.25	.25	.30
3" "	.12	.15	.15	.15	.20	.20	.20	.20	.25	.25	.25	.30	.30
3 1/4" "	.12	.15	.15	.15	.20	.20	.20	.25	.25	.30	.30	.30	.35
4" "	.12	.15	.15	.20	.20	.20	.25	.25	.25	.30	.30	.30	.35
4 1/2" "	.12	.15	.20	.20	.20	.25	.25	.25	.30	.30	.35	.35	.40
5" "	.12	.15	.20	.20	.20	.25	.25	.30	.30	.30	.35	.35	.40
6" "	.15	.20	.20	.20	.25	.25	.30	.30	.30	.35	.35	.40	.40

Intermediate Widths and Gauges take next wider or higher gauge price.

Lengths, 1 foot or longer. Gear Blanks and Lengths under 1 foot, special.

Above as noted are first cuts; second and additional cuts are as follows:

If first cut 12c,	additional cuts 5c Ea.
" 15c	" 8c "
" 20c	" 10c "
" 25c	" 12c "
" 30c	" 15c "
" 35c	" 20c "
" 40c	" 30c "

Charge for Gross Weight Basing Stock Length Bars as 2 feet or Multiples thereof. Minimum charge for cutting, 25c.

COLD ROLLED STRIP STEEL

DEAD SOFT QUALITY for difficult bending, forming and drawing. Suitable for nickel and other plating. Bright finish.

HALF-HARD QUALITY for simple bending and forming where stiffness of material is required. Suitable for nickel or other plating. Bright finish.

HARD QUALITY primarily intended for flat work and punching. Suitable for nickel and other plating. Bright finish.

DEAD SOFT QUALITY

In 8 Foot Lengths

Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds
6	.018	**No. 26**	3	12	.035	**No. 20**	12	12	.072	**No. 15**	24
6	.020	**25**	3½	6	.042	**19**	7	6	.083	**14**	14
6	.022	**24**	3½	8	.042	19	9	8	.083	14	18
12	.022	24	7¼	12	.042	19	13¾	12	.083	14	27
6	.025	**23**	4	6	.049	**18**	8	6	.109	**12**	18
8	.025	23	5½	8	.049	18	11	8	.109	12	24
12	.025	23	8	12	.049	18	16	12	.109	12	**36**
6	.028	**22**	4½	6	.058	**17**	10	6	.120	**11**	20
8	.028	22	6	8	.058	17	13	8	.120	11	26
12	.028	22	9	12	.058	17	20	12	.120	11	40
6	.032	**21**	5½	6	.065	**16**	11	6	.134	**10**	22
8	.032	21	7	8	.065	16	14	12	.134	10	44
12	.032	21	10½	12	.065	16	21	12	.148	**9**	48
6	.035	**20**	6	6	.072	**15**	12	12	.156	$\frac{5}{32}$	50
8	.035	20	8	8	.072	15	16	12	.187	$\frac{3}{16}$	61

(Continued on next page)

COLD ROLLED STRIP STEEL

(Continued)

HALF-HARD QUALITY—6 Foot Lengths. **See Description, page 34**

Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds
12	.156	5/32	37	12	.072	15 Ga.	18	6	.032	21 Ga.	4
12	.134	10	33	6	.065	16 Ga.	8	8	.032	21 Ga.	5½
6	.125	⅛	15	8	.065	16 Ga.	10	12	.032	21 Ga.	8
8	.125	⅛	20	12	.065	16 Ga.	16	6	.028	22 Ga.	3½
12	.125	⅛	30	6	.058	17 Ga.	7	12	.028	22 Ga.	7
6	.109	12 Ga.	13	8	.058	17 Ga.	9½	6	.025	23 Ga.	3
8	.109	12 Ga.	17	12	.058	17 Ga.	14	8	.025	23 Ga.	4
12	.109	12 Ga.	26	6	.049	18 Ga.	6	12	.025	23 Ga.	6
6	.095	13 Ga.	12	8	.049	18 Ga.	8	6	.022	24 Ga.	2¾
8	.095	13 Ga.	15	12	.049	18 Ga.	12	8	.022	24 Ga.	3¾
12	.095	13 Ga.	23	6	.042	19 Ga.	5¼	12	.022	24 Ga.	5½
6	.083	14 Ga.	10	8	.042	19 Ga.	6¾	6	.020	25 Ga.	2½
8	.083	14 Ga.	13	12	.042	19 Ga.	11	6	.018	26 Ga.	2¼
12	.083	14 Ga.	20	6	.035	20 Ga.	4½	6	.016	27 Ga.	in coil
6	.072	15 Ga.	9	8	.035	20 Ga.	5¾	6	.014	28 Ga.	in coil
8	.072	15 Ga.	12	12	.035	20 Ga.	9	6	.012	30 Ga.	in coil

HARD QUALITY—6 Foot Lengths. **See Description, page 34**

Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds	Width Inches	Thickness In.	Thickness Birm. or Stubs	Approx. Wt. per Strip Pounds
5¼	.250	¼	28	12	.083	14 Ga.	20	12	.042	19 Ga.	11
5¼	.219	7/32	23	6	.072	15 Ga.	9	6	.035	20 Ga.	4½
12	.219	7/32	54	8	.072	15 Ga.	12	8	.035	20 Ga.	5¾
5¼	.187	3/16	20	12	.072	15 Ga.	18	12	.035	20 Ga.	9
12	.156	5/32	38	6	.065	16 Ga.	18	6	.032	21 Ga.	4
6	.125	⅛	15	8	.065	16 Ga.	10	6	.028	22 Ga.	3½
8	.125	⅛	20	12	.065	16 Ga.	16	6	.025	23 Ga.	3
12	.125	⅛	30	6	.058	17 Ga.	7	6	.022	24 Ga.	2¾
6	.109	12 Ga.	13	12	.058	17 Ga.	14	6	.020	25 Ga.	2½
8	.109	12 Ga.	17½	6	.049	18 Ga.	6	6	.018	26 Ga.	2¼
12	.109	12 Ga.	26	8	.049	18 Ga.	18	6	.016	27 Ga.	in coi
6	.095	13 Ga.	12	12	.049	18 Ga.	12	6	.014	28 Ga.	in coi
12	.095	13 Ga.	23	6	.042	19 Ga.	5½	6	.012	30 Ga.	in coi
6	.083	14 Ga.	10	8	.042	19 Ga.	6¾	6	.010	31 Ga.	in coi
8	.083	14 Ga.	13½								

UNIVERSAL ROLLED STEEL PLATES

Rolled to Manufacturers Standard Class A Specification—O. H. Steel.

IN STOCK **ALL 3 TO 40 FT. LENGTHS**

Size in.	Est. Weight lin. ft., lbs.	Extra for Size	Size in.	Est. Weight, lin. ft., lbs.	Extra for Size
3-16x 7	4.46	.20	**3-8x 7**	8.93	Base
8	5.10	"	8	10.20	"
9	5.74	"	9	11.48	"
10	6.38	"	10	12.75	"
12	7.65	"	12	15.30	"
14	8.93	"	14	17.85	"
15	9.56	"	15	19.13	"
16	10.20	"	16	20.40	"
18	11.48	"	18	22.95	"
20	12.75	"	20	25.50	"
24	15.30	"	22	28.05	"
1-4x 7	5.95	Base	24	30.60	"
8	6.80	"			
9	7.65	"	**7-16x 7**	10.41	"
10	8.50	"	8	11.90	"
12	10.20	"	9	13.39	"
14	11.90	"	10	14.88	"
15	12.75	"	12	17.85	"
16	13.60	"	14	20.83	"
18	15.30	"	16	23.80	"
20	17.00	"	18	26.78	"
22	18.70	"	20	29.75	"
24	20.40	"	24	35.70	"
5-16x 7	7.44	"	**1-2x 7**	11.90	"
8	8.50	"	8	13.60	"
9	9.56	"	9	15.30	"
10	10.63	"	10	17.00	"
12	12.75	"	12	20.40	"
14	14.88	"	14	23.80	"
15	15.94	"	15	25.50	"
16	17.00	"	16	27.20	"
18	19.13	"	18	30.60	"
20	21.25	"	20	34.00	"
22	23.38	"	22	37.40	"
24	25.50	"	24	40.80	"

No Cutting Charge on Lengths 3 ft. 0 in. or Over, for Other ıtting Extra, See Page 153.

(Continued on page 35.)

UNIVERSAL ROLLED STEEL PLATES

(Continued)

Rolled to Manufactured Standard Class A Specification—O. H. Steel.

IN STOCK **ALL 3 TO 40 FT. LENGTHS**

Size in.	Est. Weight, lin. ft., lbs.	Extra for Size	Size in.	Est. Weight, lin. ft., lbs.	Extra for Size
9-16x 8	15.30	Base	7-8x 8	23.80	Base
10	19.13	"	10	29.75	"
12	22.95	"	12	35.70	"
16	30.60	"	14	41.65	"
			16	47.60	"
5-8x 7	14.88	"	24	71.40	"
8	17.00	"			
9	19.13	"	1x 7	23.80	"
10	21.25	"	8	27.20	"
12	25.50	"	9	30.60	"
14	29.75	"	10	34.00	"
16	34.00	"	12	40.80	"
18	38.25	"	14	47.60	"
20	42.50	"	16	54.40	"
22	46.75	"	18	61.20	"
24	51.00	"	20	68.00	"
			24	81.60	"
3-4 7	17.85	"			
8	20.40	"	1 1-4x 8	34.00	"
9	22.95	"	12	51.00	"
10	25.50	"			
12	30.60	"	1 1-2x 8	40.80	"
14	35.70	"	10	51.00	"
16	40.80	"	12	61.20	"
18	45.90	"			
20	51.00	"	1 3-4x 8	47.60	"
22	56.10	"	2x 8	54.40	"
24	61.20	"	9	61.20	"
			12	81.60	"

No Cutting Charge on Lengths 3 ft. 0 in. or Over, for Other Cutting Extra, See page 153.

FOR "SCULLY" COPPER BEARING

STEEL PLATES

See Pages 40 and 41

WRITE FOR PRICES

TANK STEEL PLATES

Rolled to Manufacturers Standard Class A Specification —O. H. Steel

SIZES IN STOCK

Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size	Est Wt. per Plate, Lbs.	Extra for Size
3-16x24x120	153	20	**3-16x**44x144	337	.20	**3-16x**60x360	1148	.20
24x138	176	"	44x156	365	"	66x300	1052	"
24x360	459	"	44x360	843	"	72x 98	375	"
26x120	165	"	48x 98	250	"	72x120	459	"
26x138	190	"	48x120	306	"	72x138	530	"
28x120	178	"	48x138	352	"	72x144	550	"
28x138	206	"	48x144	367	"	72x156	597	"
30x 98	156	"	48x156	398	"	72x175	668	"
30x120	191	"	48x175	446	"	72x194	742	"
30x138	220	"	48x194	495	"	72x240	918	"
30x300	479	"	48x300	766	"	72x360	1377	"
30x360	574	"	48x360	918	"	84x 96	429	.70
36x 98	187	"	49x 98	255	"	84x 98	437	"
36x120	230	"	50x120	319	"	84x120	536	"
36x138	264	"	50x138	367	"	84x138	616	"
36x144	275	"	50x144	383	"	84x156	696	"
36x156	298	"	50x156	415	"	84x300	1340	"
36x300	575	"	50x175	465	"	84x360	1611	"
36x360	689	"	50x360	956	"	96x 98	500	.80
38x120	242	"	54x 98	280	"	96x120	612	"
40x 98	209	"	54x120	344	"	96x138	704	"
40x120	255	"	54x138	396	"	96x144	734	"
40x138	294	"	54x144	413	"	96x156	796	"
40x144	306	"	54x156	447	"	96x300	1532	"
40x360	765	"	54x300	861	"			
42x 98	218	"	54x360	1032	"			
42x120	268	"	60x 98	312	"	**1-4x**24x 98	167	Base
42x138	308	"	60x120	382	"	24x120	204	"
42x144	321	"	60x138	440	"	24x138	235	"
42x156	348	"	60x144	459	"	24x360	612	"
42x300	670	"	60x156	497	"	26x120	221	"
42x360	803	"	60x175	556	"	26x138	255	"
44x 98	229	"	60x194	618	"	28x120	250	"
44x120	281	"	60x240	765	"	30x 98	208	"
44x138	323	"	60x300	956	"	30x120	255	"

See pages 46 and 47 for Tank Steel Heads. Plates cut to any desired size, see page 153.

(Continued on page 37)

TANK STEEL PLATES

(Continued)

Rolled to Manufacturers Standard Class A Specification —O. H. Steel

SIZES IN STOCK

Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size in.	Est. W,. Plate, Lbs. per	Extra for Size
1-4x30x138	293	Base	1-4x48x138	470	Base	1-4x72x138	703	Base
30x300	638	"	48x144	490	"	72x144	734	"
30x360	765	"	48x156	530	"	72x156	795	"
32x120	266	"	48x175	595	"	72x175	890	"
32x138	316	"	48x194	660	"	72x194	980	"
36x 98	249	"	48x300	1020	"	72x300	1530	"
36x120	306	"	48x360	1224	"	72x360	1836	"
36x138	352	"	50x120	425	"	84x 98	582	"
36x144	367	"	50x138	489	"	84x120	714	"
36x156	398	"	50x156	554	"	84x138	820	"
36x300	765	"	50x360	1276	"	84x144	855	"
36x360	918	"	54x 98	375	"	84x156	926	"
38x120	323	"	54x120	459	"	84x175	1040	"
38x138	371	"	54x138	528	"	84x194	1150	"
40x 98	278	"	54x144	551	"	84x300	1785	"
40x120	340	"	54x156	597	"	84x360	2142	"
40x138	391	"	54x175	669	"	96x 98	665	"
40x144	408	"	54x194	743	"	96x120	815	"
40x156	443	"	54x300	1148	"	96x138	938	"
40x360	1020	"	54x360	1378	"	96x144	976	"
42x 98	297	"	60x 98	417	"	96x156	1060	"
42x120	350	"	60x120	510	"	96x175	1155	"
42x138	419	"	60x138	587	"	96x194	1358	"
42x156	463	"	60x144	613	"	96x300	2040	"
42x300	894	"	60x156	664	"	96x360	2448	"
42x360	1070	"	60x175	744	"			
44x 98	305	"	60x194	825	"	5-16x24x120	255	"
44x120	371	"	60x300	1275	"	30x120	319	"
44x138	430	"	60x360	1530	"	30x138	367	"
44x144	448	"	66x300	1403	"	30x300	813	"
44x156	486	"	66x360	1683	"	30x360	956	"
44x360	1121	"	72x 96	491	"	36x120	382	"
48x 98	333	"	72x 98	499	"	36x138	440	"
48x120	408	"	72x120	611	"	36x144	459	"

See pages 46 and 47 for Tank Steel Heads. Plates cut to any desired size, see page 153.

(Continued on page 38)

TANK STEEL PLATES

(Continued)

Rolled to Manufacturers Standard Class A Specification —O. H. Steel

SIZES IN STOCK

Size	Est. Wt. per Plate, Lbs.	Extra for Size
5–16x		
36x156	498	Base
36x300	975	"
36x360	1148	"
40x120	425	"
40x360	1275	"
42x120	446	"
42x138	514	"
42x144	535	"
42x300	1138	"
42x360	1339	"
44x120	467	"
44x144	560	"
44x360	1403	"
48x120	510	"
48x138	587	"
48x144	613	"
48x156	664	"
48x175	758	"
48x194	825	"
48x300	1275	"
48x360	1530	"
54x120	574	"
54x300	1456	"
54x360	1721	"
60x 98	520	"
60x120	638	"
60x138	734	"
60x144	765	"
60x156	829	"
60x175	930	"
60x194	1030	"
60x300	1620	"
60x360	1913	"
5-16x		
66x300	1753	Base
66x360	2104	"
72x120	764	"
72x138	880	"
72x144	917	"
72x156	993	"
72x175	1115	"
72x194	1235	"
72x300	1940	"
72x360	2295	"
84x120	891	"
84x138	1025	"
84x144	1069	"
84x156	1158	"
84x175	1300	"
84x194	1440	"
84x300	1912	"
84x360	2678	"
96x120	1020	"
96x138	1174	"
96x144	1222	"
96x156	1324	"
96x175	1495	"
96x194	1646	"
96x300	2552	"
96x360	3060	"
3-8x		
24x120	306	"
24x360	918	"
30x120	383	"
30x300	956	"
30x360	1148	"
3-8x		
36x120	459	Base
36x138	528	"
36x300	1148	"
36x360	1378	"
40x120	510	"
40x360	1530	"
42x120	536	"
42x138	612	"
42x300	1339	"
44x120	561	"
48x 98	500	"
48x120	612	"
48x138	704	"
48x144	734	"
48x156	795	"
48x194	920	"
48x300	1530	"
48x360	1836	"
54x120	689	"
54x138	792	"
54x300	1721	"
54x360	2066	"
60x120	766	"
60x138	880	"
60x144	918	"
60x156	995	"
60x175	1116	"
60x194	1236	"
60x300	1913	"
60x360	2297	"
65x118	815	"
66x300	2104	"
66x360	2525	"

See pages 46 and 47 for Tank Steel Heads.
Plates cut to any desired sizes; see page 153.

(Continued on page 39)

TANK STEEL PLATES

(Continued)

Rolled to Manufacturers Standard Class A Specification —O. H. Steel

SIZES IN STOCK

Size	Est. Wt. per Plate, Lbs.	Extra for Size
3-8x		
72x120	910	Base
72x138	1056	"
72x144	1102	"
72x156	1193	"
72x175	1340	"
72x194	1484	"
72x212½	1625	"
72x232½	1779	"
72x300	2296	"
72x360	2756	"
84x120	1071	"
84x138	1232	"
84x156	1394	"
84x175	1563	"
84x194	1732	"
84x232½	2074	"
84x300	2678	"
84x360	3215	"
96x118	1202	"
96x120	1224	"
96x156	1591	"
96x194	1979	"
96x212½	2165	"
96x232½	2371	"
96x300	3060	"
96x360	3672	"
1-2x		
24x120	408	"
30x120	510	"
30x300	1275	"
30x360	1530	"
36x120	612	"
1-2x		
36x300	1530	Base
36x360	1836	"
40x120	680	"
42x120	714	"
42x300	1785	"
42x360	2140	"
48x 98	666	"
48x120	816	"
48x144	979	"
48x300	2040	"
48x360	2448	"
54x120	918	"
54x300	2295	"
57x118	918	"
60x 98	833	"
60x120	1020	"
60x138	1173	"
60x144	1224	"
60x156	1326	"
60x300	2550	"
66x300	2806	"
72x120	1224	"
72x138	1408	"
72x144	1469	"
72x156	1591	"
72x194	1979	"
72x232½	2371	"
72x300	3060	"
72x360	3672	"
84x120	1428	"
84x300	3570	"
84x360	4284	"
96x118½	1612	"
1-2x		
96x232½	3155	Base
96x300	4080	"
96x360	4896	"
5-8x		
30x300	1594	"
36x300	1913	"
48x300	2550	"
60x300	3188	"
60x360	3826	"
72x300	3825	"
72x360	4590	"
84x300	4464	"
96x300	5100	"
3-4x		
30x300	1913	"
36x300	2295	"
48x300	3060	"
60x300	3825	"
72x300	4590	"
72x360	5508	"
84x300	5356	"
96x300	6120	"
1 60x300	5100	"
60x360	6120	"
1 1-4x		
60x300	6375	"
1 1-2x		
60x300	7650	"

See pages 44 and 45 for Tank Steel Heads.
Plates cut to any desired size; see page 153.

WRITE FOR PRICES

"SCULLY" COPPER BEARING STEEL PLATES

Highly Non-Corrosive—Ideal for Smoke Stacks—Breeching—Tanks

and all work exposed to weather, water, gas or smoke

Size	Est. Wt. per Plate, Lbs.	Extra for Size
3-16x24x120	153	.45
24x138	176	"
26x120	165	"
26x138	190	"
28x120	178	"
28x138	206	"
30x 98	156	"
30x120	191	"
30x138	220	"
30x300	479	"
36x 98	187	"
36x120	230	"
36x138	264	"
36x144	275	"
36x156	298	"
36x300	575	"
38x120	242	"
40x 98	209	"
40x120	255	"
40x138	294	"
40x144	306	"
42x 98	218	"
42x120	268	"
42x138	308	"
42x144	321	"
42x156	348	"
42x300	670	"
44x 98	229	"
44x120	281	"
44x138	323	"
44x144	337	"
44x156	365	"
48x 98	250	"
48x120	306	"
48x138	352	"
48x144	367	"
48x156	398	"
48x175	446	"
48x194	495	"
48x300	766	"
49x 98	255	"
50x120	319	"
50x138	367	"
50x144	383	"
50x156	415	"
50x175	465	"
54x 98	280	"
54x120	344	"
54x138	396	"
54x144	413	"
54x156	447	"
54x175	502	"
54x194	557	"
3-16x54x300	861	.45
60x 98	312	"
60x120	382	"
60x138	440	"
60x144	459	"
60x156	497	"
60x175	556	"
60x194	618	"
60x240	765	"
60x300	956	"
66x 98	344	"
66x120	421	"
66x138	484	"
66x144	505	"
66x156	547	"
66x175	614	"
66x194	680	"
66x300	1052	"
72x 98	375	"
72x120	459	"
72x138	530	"
72x144	550	"
72x156	597	"
72x175	668	"
72x194	742	"
72x240	918	"
72x300	1147	"
1-4x24x120	204	.25
24x138	235	"
26x120	221	"
26x138	255	"
28x120	250	"
30x 98	208	"
30x120	255	"
30x138	293	"
30x300	638	"
32x120	266	"
32x138	316	"
36x 98	249	"
36x120	306	"
36x138	352	"
36x144	367	"
36x156	398	"
36x300	765	"
38x120	323	"
38x138	371	"
40x 98	278	"
40x120	340	"
40x138	391	"
40x144	408	"
40x156	443	"
42x 98	297	"
42x120	350	"
1-4x42x138	419	.25
42x144	428	"
42x156	463	"
42x300	894	"
44x 98	305	"
44x120	371	"
44x138	430	"
44x144	448	"
44x156	486	"
48x 98	333	"
48x120	408	"
48x138	470	"
48x144	490	"
48x156	530	"
48x175	595	"
48x194	660	"
48x300	1020	"
50x120	425	"
50x138	489	"
50x156	554	"
54x 98	375	"
54x120	459	"
54x138	528	"
54x144	551	"
54x156	597	"
54x175	669	"
54x194	743	"
54x300	1148	"
60x 98	417	"
60x120	510	"
60x138	587	"
60x144	613	"
60x156	664	"
60x175	744	"
60x194	825	"
60x300	1275	"
66x 98	458	"
66x120	561	"
66x138	645	"
66x144	673	"
66x156	729	"
66x175	818	"
66x194	907	"
66x300	1403	"
72x 98	499	"
72x120	611	"
72x138	703	"
72x144	734	"
72x156	795	"
72x175	890	"
72x194	980	"
72x300	1530	"

(Continued on page 41)

"SCULLY" COPPER BEARING STEEL PLATES

(Continued)

Highly Non-Corrosive—Ideal for Smoke Stacks—Breeching—Tanks

and all work exposed to weather, water, gas or smoke

Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size	Est. Wt. per Plate, Lbs.	Extra for Size	Size	Est. Wt. per Plate, Lbs.	Extra for Size
5-16x24x120	255	.25	5-16x72x156	993	.25	3-8x72 x144	1102	.25
30x120	319	"	72x175	1115	"	72 x156	1193	"
30x138	367	"	72x194	1235	"	72 x194	1484	"
30x300	813	"	72x300	1940	"	72x212½	1625	"
36x120	382	"	3-8x24 x120	306	"	72x232½	1779	"
36x138	440	"	30 x120	383	"	72 x300	2296	"
36x144	459	"	30 x300	956	"	1-2x24 x120	408	"
36x156	498	"	36 x120	459	"	30 x120	510	"
36x300	975	"	36 x138	528	"	30 x300	1275	"
40x120	425	"	36 x300	1148	"	36 x120	612	"
42x120	446	"	40 x120	510	"	36 x300	1530	"
42x138	514	"	42 x120	536	"	40 x120	680	"
42x144	535	"	42 x138	612	"	42 x120	714	"
42x300	1138	"	42 x300	1339	"	42 x300	1785	"
44x120	467	"	44 x120	561	"	48 x 98	666	"
44x144	560	"	48 x 98	500	"	48 x120	816	"
48x120	510	"	48 x120	612	"	48 x144	979	"
48x138	587	"	48 x138	704	"	48 x300	2040	"
48x144	613	"	48 x144	734	"	54 x120	918	"
48x156	664	"	48 x156	795	"	54 x300	2295	"
48x175	758	"	48 x194	920	"	57 x118	918	"
48x194	825	"	48 x300	1530	"	60 x 98	833	"
48x300	1275	"	54 x120	689	"	60 x120	1020	"
54x120	574	"	54 x138	792	"	60 x138	1173	"
54x300	1456	"	54 x300	1721	"	60 x144	1224	"
60x 98	520	"	60 x120	766	"	60 x156	1326	"
60x120	638	"	60 x138	880	"	60 x300	2550	"
60x138	734	"	60 x144	918	"	65 x118	1086	"
60x144	765	"	60 x156	995	"	66 x300	2806	"
60x156	829	"	60 x175	1116	"	72 x120	1224	"
60x175	930	"	60 x194	1236	"	72 x138	1408	"
60x194	1030	"	60 x300	1913	"	72 x144	1469	"
60x300	1620	"	64½x118	815	"	72 x156	1591	"
66x300	1753	"	66 x300	2104	"	72 x194	1979	"
72x120	764	"	72 x118	902	"	72x232½	2371	"
72x138	880	"	72 x120	918	"	72 x300	3060	"
72x144	917	"	72 x138	1056	"			

WRITE FOR PRICES

Sheets
Tubes
Rivets
Bolts, Nuts
Washers
Lugs
Trolley
Boiler
Specialty
Tool
Machinery
Hand and
Power
Tables
Whse
Cutting
Extra

FLANGE STEEL

55,000 to 65,000 T. S. Sizes in Stock

Size	Est. Weight per Plate	Extra for Size and Quality
1-4x		
24 x120	204	.25
26 x120	221	"
30 x120	255	"
36 x120	306	"
36 x138	352	"
40 x120	340	"
48 x120	408	"
48 x360	1224	"
49 x 98	339	"
50 x120	425	"
54 x120	459	"
57 x156	629	"
60 x 98	417	"
60 x120	510	"
60 x138	587	"
60 x156	663	"
60 x360	1530	"
64¾x138	632	"
64¾x143	654	"
64¾x156	714	"
64¾x194	890	"
72 x 98	499	"
72 x120	611	"
72 x138	703	"
72 x143	728	"
72 x156	795	"
72 x175	890	"
72 x194	990	"
72 x360	1836	"
84 x 98	583	"
84 x120	714	"
84 x138	821	"
84 x143	851	"
84 x156	928	"
84 x175	1040	"
84 x194	1154	"
96 x138	940	"
96 x156	1061	"
5-16x		
26 x120	276	"
30 x120	319	"
30 x138	367	"
36 x120	382	"
40 x120	425	"
42 x120	446	"
44 x120	467	"
5-16x		
44 x138	537	.25
48 x120	510	"
48 x138	587	"
50 x120	531	"
54 x120	574	"
54 x138	660	"
57 x156	787	"
57 x194	977	"
60 x120	638	"
60 x360	1913	"
64¾x138	791	"
64¾x143	820	"
64¾x156	894	"
64¾x175	1000	"
64¾x194	1110	"
72½x 99	635	"
72½x120	770	"
72½x138	885	"
72½x143	918	"
72½x156	1002	"
72½x175	1122	"
72½x194	1243	"
72½x360	2311	"
84 x120	893	"
84 x156	1161	"
84 x175	1302	"
84 x194	1442	"
84 x360	2678	"
96 x120	1020	"
96 x138	1173	"
96 x156	1326	"
96 x175	1488	"
96 x194	1649	"
96 x360	3060	.25
107½x194	1824	.30
120 x205	2177	.40
3-8x		
30 x120	383	.25
36 x120	459	"
36 x138	528	"
40 x120	510	"
40 x138	587	"
44 x120	561	"
48 x120	612	"
48 x138	704	"
50 x120	637	"
3-8x		
54 x120	689	.25
54 x138	792	"
60 x120	766	"
60 x138	880	"
60 x360	2297	"
64¾x108	745	"
64¾x118	811	"
64¾x156	1073	"
64¾x194	1333	"
64¾x232½	1590	"
72½x 99	768	"
72½x108	834	"
72½x118	910	"
72½x120	924	"
72½x156	1201	"
72½x194	1491	"
72½x212½	1637	"
72½x232½	1790	"
72½x360	2773	"
84 x108½	966	"
84 x118	1054	"
84 x120	1071	"
84 x156	1392	"
84 x194	1731	"
84 x232½	2076	"
84 x360	3216	"
96 x108½	1107	"
96 x118	1202	"
96 x156	1591	"
96 x194	2000	"
96 x212½	2166	"
96 x232½	2371	"
96 x360	3672	"
107½x108½	1237	.30
107½x118	1346	"
107½x194	2275	"
107½x212½	2420	"
107½x232½	2646	"
7-16x		
36 x120	536	.25
40 x120	595	"
48 x120	714	"
60 x120	893	"
72 x120	1070	"
73 x209	1890	"
75 x228	2120	"

(Continued on next page)

FLANGE STEEL

55,000 to 65,000 T. S. Sizes in Stock—Continued

Size	Est. Weight per Plate	Extra for Size and Quality
7-16x		
84 x270	2812	.25
95½x209	2505	"
98 x228	2770	"
107½x209	2822	.30
1-2x		
36 x120	612	.25
40 x120	680	"
48 x120	816	"
60 x120	1102	"
60 x360	3060	"
72 x120	1222	"
72 x360	3672	"
73 x228	2330	"
75 x228	2454	"
84 x180	2142	"
95½x228	3100	"
1-2x		
98 x228	3245	.25
98 x360	4998	"
107½x228	3485	.30
5-8x		
36 x120	765	.25
40 x120	850	"
48 x120	1020	"
60 x120	1275	"
72 x120	1528	"
84 x120	1785	"
84 x180	2677	"
3-4x		
36 x120	918	"
40 x120	1020	"
48 x120	1224	"
3-4x		
60 x120	1531	.25
72 x120	1836	"
84 x180	3213	"
7-8x		
72 x144	2646	"
1x		
36 x144	1469	"
48 x144	1959	"
60 x144	2449	"
72 x144	2938	"
1 1-4x		
72 x144	3672	"
1 3-4x		
72 x144	5141	"

FIREBOX STEEL

55,000 to 65,000 T. S. Sizes in Stock

Size	Est. Weight per Plate	Extra for Size and Quality
5-16x		
60 x120	638	.50
60 x360	1913	"
72½x360	2311	"
84 x360	2678	"
95½x190	1606	"
96 x360	3060	"
3-8x		
60 x120	766	"
60 x360	2297	"
3-8x		
64¾x228	1568	.50
72½x360	2773	"
73 x190	1473	"
73 x209	1620	"
73 x228	1767	"
95½x190	1927	"
95½x209	2120	"
95½x228	2312	"
96 x360	3672	"
107½x228	2603	.55
7-16x		
60 x120	893	.50
64¾x228	1830	"
73 x209	1892	"
73 x228	2064	"
96½x209	2500	"
96½x228	2728	"
107½x228	3039	.55
1-2x		
96 x228	3101	"

See pages 44 and 45 for Circles and Heads.

Plates cut to any size desired; extra charge for labor and waste.

Our Flange and Firebox Steel Plates meet the requirements of the Hartford Steam Boiler Inspection & Insurance Co., A. S. M. E. Code and Chicago Code. We will furnish certificate of test when requested to do so on orders.

FLANGE (55,000 TO 65,000 LBS. T. S.) AND TANK STEEL CIRCLES

IN STOCK.

Diameter of Heads, Inches	THICKNESS AND QUALITY OF HEADS						
	Est. Wt. per Hd., 3/16"	Est. Wt. per Hd., 1/4"	Est. Wt. per Hd., 5/16"	Est. Wt. per Hd., 3/8"	Est. Wt. per Hd., 7/16"	Est. Wt. per Hd., 1/2"	Est. Wt. per Hd., 5/8"
14	....	....	16	....	....	....	....
16	....	....	18	....	....	....	....
18	....	....	23	27	....	....	....
20	....	....	28	34	....	....	....
22	21	27	34	41	....	....	....
24	25	32	41	49	....	....	....
26	29	38	47	57	....	....	....
28	33	44	55	66	....	....	....
30	38	51	63	76	88	101	....
32	43	57	72	86	....	....	....
34	49	65	81	97	113	129	....
36	55	73	91	109	127	145	....
38	61	81	101	121	141	....	....
40	67	90	112	134	156	178	....
42	74	99	123	148	173	197	....
44	81	108	135	162	189	216	....
46	89	118	148	177	206	236	....
48	97	129	161	193	225	257	....
52½	115	153	192	230	268	307	....
54	122	....	203	244	284	325	....
58½	143	191	238	286	335	382	....
60	151	....	....	301	351	401	....
61	155	....	....	....	370	....	....
65	177	236	294	353	412	....	....
66	....	....	....	364	425	485	....
71	....	281	351	421	491	561	702
72	....	....	....	....	....	577	....
73	....	....	....	445	....	....	....
75	240	318	....	....	....	....	....
77	....	330	413	495	578	....	....
78	....	339	424	508	593	677	847
79	....	....	....	....	....	....	....
81	....	....	456	....	....	730	913
87	....	....	....	....	....	843	....
89	....	441	551	661	....	882	....
101	....	568	710	852	....	1135	....

EXTRAS FOR CIRCLES

24" to 100" dia. inclusive—3/16" to 1" thick incl....$1.25 per 100 lbs.
Under 24" to 12" dia. incl.— " " " .... 2.00 " "
" 12" " " — " " " .... 2.75 " "
Over 100" to 107½" " " — " " " .... 1.30 " "

See next page for heads already flanged.

EXTRAS SHOWN ONLY ON SIZES IN STOCK.

WRITE FOR PRICES

MACHINE FLANGED HEADS FLANGE AND TANK STEEL.

Sizes in Stock are Indicated by Check

Thickness.	Outside Diameter After Flanging—Inches.										
	24	30	35½	36	40	42	48	54	60	66	72
3/16	√	√	....	√	....	√	√	....	√	....	....
¼	√	√	....	√	....	√	√	....	√	....	√
5/16	√	√	....	√	....	√	√	....	√	....	....
⅜	√	√	√	√	√	√	√	√	√	....	....
7/16	....	√	....	√	....	√	√	√	√	....	√
½	....	√	....	√	....	√	√	√	√	√	√

N. B.: The heads 3/16" and ¼" thick are Tank Steel. All 5/16" and heavier are Flange Steel. Any size heads can be flanged promptly and we can also furnish heads with man-holes flanged in same.

FLANGED AND DISHED HEADS

Sizes in Stock are Indicated by Check

Thickness.	Outside Diameter After Flanging and Dishing—Inches.									
	30	36	42	48	....	....	....	....	....	....
3/16	√	√	√	√	....	....	....	....	....	....
¼	√	√	√	√	....	....	....	....	....	....
5/16	....	√	√	√	....	....	....	....	....	....
⅜	....	√	√	√	....	....	....	....	....	....

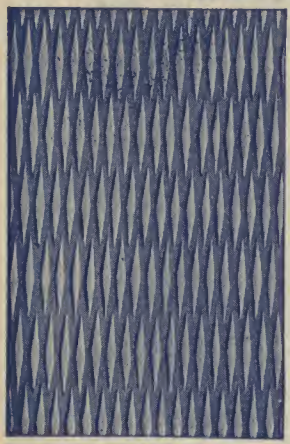
Note—Any size heads can be flanged and dished promptly in Chicago, and we can also furnish heads with man-holes flanged in same.

FOR TUBE HOLE CUTTERS, See Page 106

WRITE FOR PRICES

SCULLY WROUGHT STEEL FLOOR PLATES

Raised Diamond Pattern



"Scully" Wrought Steel Floor Plates are not an experiment. They have been on the market for years and have never failed to give satisfaction for use in floors and stairways.

They are rolled from Open Hearth Steel with a tensile strength running from 55,000 lbs. to 70,000 lbs. The raised diamonds are high and have four square edges. The surface of the diamond is approximately flat, thereby providing an even and non-slipping surface, which will give maximum wear.

By a special process of manufacturing, SCULLY Diamond Pattern Wrought Steel Floor Plates receive a non-slipping surface that exceeds and will outwear other types of floor plates.

SIZES IN STOCK

Size.	Estimated Weight per Plate	Size.	Estimated Weight per Plate	Size.	Estimated Weight per Plate
3-16x24x 72	105	3-16x48x 96	280	**1-4**x48x 96	360
24x 96	140	48x120	350	48x120	450
24x120	175	48x144	420	48x192	720
24x240	350	48x240	700	48x240	900
26x 96	150	**1-4**x24x 96	180	54x192	810
26x120	190	24x120	225	60x144	675
26x240	380	24x240	450	60x192	900
28x120	204	26x120	244	**5-16**x28x240	642
28x240	408	26x240	488	30x 72	207
30x 72	131	28x120	263	30x 96	275
30x 96	175	28x240	526	30x120	344
30x120	219	30x 72	169	30x240	688
30x240	438	30x 96	225	36x 72	248
36x 72	158	30x120	281	36x 96	330
36x 96	210	30x240	562	36x120	413
36x120	263	36x 72	203	36x240	826
36x144	315	36x 96	270	42x 96	385
36x192	420	36x120	338	42x120	482
36x240	526	36x240	676	42x240	964
42x 96	245	42x 96	315	48x 96	440
42x120	307	42x120	394	48x120	550
42x144	368	42x144	473	48x240	1100
42x240	614	42x240	788	60x192	1100

(Continued on page47)

N. B.—Thickness of floor plate does not include height of diamond.

WRITE FOR SPECIAL CIRCULAR AND PRICES

SCULLY WROUGHT STEEL FLOOR PLATES

(Continued)

Size.	Estimated Weight per Plate	Size.	Estimated Weight per Plate	Size.	Estimated Weight per Plate
3-8x28x240	760	3-8x36x120	488	3-8x48x120	650
30x 96	325	36x240	976	48x192	1040
30x120	406	42x 96	455	48x240	1300
30x240	812	42x120	569	54x192	1170
36x 96	390	42x240	1138	60x192	1300
		48x 96	520		

N. B.—Thickness of floor plate does not include height of diamond.
Note:—We will cut stock widths to lengths 3 ft. and over without charge for cutting or waste.

CUTTING EXTRAS

	3 ft. and over	2 ft. to 3 ft.	1 ft. to 2 ft.	6 in. to 1 ft.
To length only	.00	.25	.25	.35 per cwt.
To width only	.25	.25	.25	.35 " "
To length and width	.25	.45	.45	.55 " "

We will split plates to the following widths without charge:
$\frac{3}{16}$ x 20 and 21″ wide
$\frac{1}{4}$ x 20, 21 and 22″ wide

When cut to length we assume waste. When cut to width purchaser assumes waste.

SAFE LOADS

In pounds per square foot

"SCULLY" FLOOR PLATE.

THICKNESS IN INCHES.

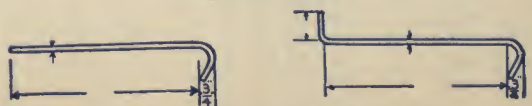
Span in feet	⅛	3/16	¼	5/16	⅜	7/16	½	⅝
2	80	182	379	516	748	1021	1345	2100
3	33	77	140	222	318	444	582	918
4	16	40	75	119	176	242	318	506
5	9	22	44	72	107	148	197	315
6		13	28	46	70	97	131	211
7		8	18	30	47	67	91	148
8			11	20	33	47	65	108
9			7	13	22	33	47	80
10				8	16	24	35	60

WEIGHTS

Thickness	Per Square Foot
⅛″	8 lbs.
3/16″	8¾ "
¼″	11¼ "
5/16″	13¾ "
⅜″	16¼ "
7/16″	19 "
½″	21½ "

STAIR TREADS

Diamond Pattern



When ordering stair treads, specify dimensions indicated.

WRITE FOR SPECIAL CIRCULAR AND PRICES

Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hoists Strap Chr
Boiler Specialt' Tool'
Machinery Hand an Powe'
Tables
Whse Cuttin Extr

BLUE ANNEALED SOFT STEEL SHEETS

Sizes in Stock and Estimated Weights

Gauge Size	Est. Wt. per Sheet	Deduct for Size and Gauge
No. 8		
24x 96	110	—.05
24x120	138	"
24x360	413	"
28x 96	128	"
30x 96	138	"
30x120	172	"
30x360	516	"
36x 96	165	"
36x120	206	"
36x138	237	"
36x144	247	"
36x156	268	"
36x360	619	"
40x 96	183	"
40x120	229	"
40x138	264	"
42x 96	192	"
42x120	241	"
42x360	732	"
48x 96	220	"
48x120	275	"
48x138	316	"
48x144	330	"
48x156	358	"
48x360	825	"
54x 96	248	"
54x120	309	"
54x138	356	"
54x144	371	"
54x360	928	"
60x 96	275	"
60x 98	281	"
60x120	344	"
60x138	395	"
60x144	413	"
60x156	447	"
60x360	1031	"
72x 98	337	"
72x120	413	"
72x138	474	"
72x144	495	"
72x156	536	"
72x360	1237	"

Gauge Size	Est. Wt. per Sheet	Extra for Size and Gauge
No. 10x		
24x 96	90.0	Base
24x120	112.5	"
24x144	135.	"
26x 96	97.5	"
26x108	109.7	"
26x120	121.9	"
28x 96	105.0	"
28x108	118.1	"
28x120	131.3	"
30x 96	112.5	"
30x108	126.6	"
30x120	140.6	"
36x 72	101.3	"
36x 77	108.3	"
36x 96	135.0	"
36x108	151.9	"
36x120	168.8	"
36x144	202.5	"
36x156	218.4	"
40x 96	150.0	"
40x120	187.5	"
42x 96	157.5	"
42x108	177.2	"
42x120	196.9	"
42x144	236.3	"
48x 77	144.4	"
48x 84	157.5	"
48x 96	180.0	"
48x108	202.5	"
48x120	225.0	"
48x138	258.8	"
48x144	270.0	"
48x156	292.5	"
48x175	317.1	"
54x 77	162.4	"
54x 96	202.5	"
54x120	253.1	"
54x138	291.1	"
54x144	303.8	"
54x156	329.1	"
60x 77	180.5	"
60x 96	225.0	"
60x120	281.3	"
60x138	323.0	"

Gauge Size	Est. Wt. per Sheet	Extra for Size and Gauge
No. 10x		
60x144	337.0	Base
60x156	365.6	"
60x168	394.0	"
72x 96	270.0	"
72x120	337.5	"
72x138	388.1	"
72x144	405.0	"
72x156	438.8	"
72x192	540.0	"
84x 96	315.0	.25
84x120	393.7	"
84x144	472.5	"
84x156	511.8	"
84x168	551.4	"
84x192	630.0	"
No. 12x		
24x 96	70.0	.10
24x120	87.5	"
26x 96	75.8	"
26x120	94.8	"
28x 96	81.7	"
28x120	102.1	"
30x 96	87.5	"
30x108	98.4	"
30x120	109.4	"
36x 77	84.2	"
36x 84	91.9	"
36x 96	105.0	"
36x108	118.1	"
36x120	131.3	"
36x144	157.5	"
40x 96	116.7	"
40x120	145.8	"
42x 96	122.5	"
42x108	137.8	"
42x120	153.1	"
42x144	183.8	"
48x 77	112.3	"
48x 84	122.5	"
48x 96	140.0	"
48x108	157.5	"
48x120	175.0	"
48x127	185.2	"
48x138	201.3	"

(Continued on next page)

BLUE ANNEALED SOFT STEEL SHEETS

(Continued)

Sizes in Stock and Estimated Weights

Gauge Size	Est. Wt. per Sheet	Extra for Size and Gauge	Gauge Size	Est. Wt. per Sheet	Extra for Size and Gauge	Gauge Size	Est. Wt. per Sheet	Extra for Size and Gauge
No. 12x			**No. 14x**			**No. 16x**		
48x144	210.0	.10	30x108	70.3	.20	26x 96	43.3	.30
48x156	227.5	"	30x120	78.1	"	26x108	48.8	"
54x 77	126.3	"	36x 77	60.2	"	26x120	54.2	"
54x 96	157.5	"	36x 96	75.0	"	28x 96	46.7	"
54x108	177.2	"	36x108	84.4	"	28x108	52.5	"
54x120	196.9	"	36x120	93.8	"	28x120	58.3	"
54x138	226.4	"	36x144	112.5	"	30x 96	50.0	"
54x144	236.3	"	40x 77	66.8	"	30x108	56.3	"
54x156	255.9	"	40x 96	83.3	"	30x120	62.5	"
60x 77	140.4	"	40x120	104.2	"	36x 77	48.1	"
60x 96	175.0	"	42x 96	87.5	"	36x 96	60.0	"
60x120	218.8	"	42x120	109.4	"	36x108	67.5	"
60x138	251.6	"	42x144	131.3	"	36x120	75.0	"
60x144	262.5	"	48x 77	80.2	"	36x144	90.0	"
60x156	284.4	"	48x 84	87.5	"	40x 96	66.7	"
60x168	306.0	"	48x 96	100.0	"	40x120	83.3	"
72x 96	210.0	"	48x108	112.5	"	42x 96	70.0	"
72x120	262.5	"	48x120	125.0	"	42x120	87.5	"
72x144	315.0	"	48x127	132.7	"	42x144	105.0	"
72x156	341.2	"	48x138	143.7	"	48x 77	64.2	"
72x192	420.0	"	48x144	150.0	"	48x 84	70.0	"
84x 96	245.0	.35	48x156	162.5	"	48x 96	80.0	"
84x120	306.2	"	54x 77	90.2	"	48x108	90.0	"
84x144	367.5	"	54x 96	112.5	"	48x120	100.0	"
84x156	398.1	"	54x120	140.6	"	48x138	115.0	"
84x168	428.3	"	54x138	161.7	"	48x144	120.0	"
No. 14x			54x144	168.8	"	48x156	130.0	"
24x 96	50.0	.20	54x156	182.8	"	54x 96	90.0	"
24x108	56.3	"	60x 96	125.0	"	54x120	112.5	"
24x120	62.5	"	60x120	156.3	"	54x138	129.4	"
24x144	75.0	"	60x138	179.6	"	54x144	135.0	"
26x 96	54.2	"	60x144	187.5	"	54x156	146.3	"
26x108	60.9	"	60x156	203.0	"	60x 96	100.0	"
26x120	67.7	"	60x168	219.0	"	60x120	125.0	"
28x 96	58.3	"	**No. 16x**			60x138	143.8	"
28x108	65.6	"	24x 96	40.0	.30	60x144	150.0	"
28x120	72.9	"	24x108	45.0	"	60x156	162.5	"
30x 96	62.5	"	24x120	50.0	"	60x168	175.0	"

We can have Sheet Steel galvanized in one day here in Chicago.

All our Sheet Steel is now rolled according to United States Standard Gauge.

Sheets cut to any desired size, see page 152.

Weights shown above are for estimating purposes and are subject to a variation of 5%.

Sheets
Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Ho S
Boiler Specialt Tools
Machinery Hand a Power
Tables
Whse Cuttin Extra

BLUE ANNEALED COPPER BEARING STEEL

STEEL AND COPPER PERFECTLY AMALGAMATED. GREATEST WEATHER, WATER, GAS AND SMOKE RESISTING QUALITIES.

IS IDEAL FOR SMOKE STACKS— BREECHING — TANKS —

AND ALL WORK EXPOSED TO ABOVE CONDITIONS

SIZES IN STOCK

Size	Est. Wt. per Sheet	Add to Base Price of Regular Blue Annealed
No. 10x24x 96	90.00	.25 cwt.
24x120	112.50	"
30x 96	112.50	"
30x120	140.60	"
36x 96	135.00	"
36x120	168.80	"
42x 96	157.50	"
42x120	196.90	"
48x 96	180.00	"
48x120	225.00	"
48x156	292.50	"
54x 96	202.50	"
54x120	253.10	"
54x156	329.10	"
60x 96	225.00	"
60x120	281.30	"
60x156	365.60	"
72x120	337.50	"
72x156	438.80	"
No. 12x24x 96	70.00	.35 cwt.
24x120	87.50	"
30x 96	87.50	"
30x120	109.40	"
36x 96	105.00	"
36x120	131.30	"
42x 96	122.50	"
42x120	153.10	"
48x 96	140.00	"
48x120	175.00	"
48x156	227.50	"
54x 96	157.50	"
54x120	196.90	"

Size	Est. Wt. per Sheet	Add to Base Price of Regular Blue Annealed
No. 12x54x156	255.90	.35 cwt.
60x 96	175.00	"
60x120	218.80	"
60x156	284.40	"
No. 14x24x 96	50.00	.45 cwt.
24x120	62.50	"
30x 96	62.50	"
30x120	78.10	"
36x 96	75.00	"
36x120	93.80	"
42x 96	87.50	"
42x120	109.40	"
48x 96	100.00	"
48x120	125.00	"
48x156	162.50	"
54x 96	112.50	"
54x120	140.60	"
54x138	161.70	"
No. 16x24x 96	40.00	.55 cwt.
24x120	50.00	"
30x 96	50.00	"
30x120	62.50	"
36x 96	60.00	"
36x120	75.00	"
42x 96	87.50	"
42x120	90.00	"
48x 96	80.00	"
48x120	100.00	"
48x156	130.00	"
54x 96	90.00	"
54x120	112.50	"
54x138	129.40	"

Sheets cut to any desired size; see page 152.

WRITE FOR PRICES

Weights shown above are for estimating purposes and are subject to a variation of 5%.

ONE PASS COLD ROLLED BOX ANNEALED SOFT STEEL SHEETS

Sizes in Stock and Estimated Weights

Gauge Size	Est. Wt. per Sheet	Ded. or Add to Base Price	Gauge Size	Est. Wt. per Sheet	Ded. or Add to Base Price
No. 18x24x 96	32.00	$—.20	**No. 22**x28x 72	17.50	$—.05
24x108	36.00	—.20	28x 84	20.40	—.05
24x120	40.00	—.20	28x 96	23.30	—.05
26x 96	34.70	—.20	28x108	26.30	—.05
26x108	39.00	—.20	28x120	29.20	—.05
26x120	43.30	—.20	30x 96	25.00	—.05
28x 96	37.30	—.20	30x120	31.30	—.05
28x108	42.00	—.20	36x 96	30.00	—.05
28x120	46.70	—.20	36x120	37.50	—.05
30x 96	40.00	—.20	42x 96	35.00	+.35
30x108	45.00	—.20	42x120	43.75	+.35
30x120	50.00	—.20	48x 96	40.00	+.35
36x 96	48.00	—.20	48x120	50.00	+.35
36x108	54.00	—.20	**No. 24**x24x 96	16.00	Base
36x120	60.00	—.20	24x101	16.90	"
42x 96	56.00	—.15	24x120	20.00	"
42x120	70.00	—.15	26x 96	17.30	"
48x 96	64.00	—.15	26x120	21.70	Base
48x120	80.00	—.15	28x 72	14.00	"
No. 20x24x 96	24.00	—.20	28x 84	16.30	"
24x120	30.00	—.20	28x 96	18.70	"
26x 96	26.00	—.20	28x101	19.70	"
26x120	32.50	—.20	28x108	21.00	"
28x 72	21.00	—.20	28x120	23.30	"
28x 84	24.50	—.20	30x 96	20.00	"
28x 96	28.00	—.20	30x120	25.00	"
28x108	31.50	—.20	36x 96	24.00	"
28x120	35.00	—.20	36x120	30.00	"
30x 96	30.00	—.20	42x 96	28.00	$+.40
30x120	37.50	—.20	42x120	35.00	+.40
36x 96	36.00	—.20	**No. 26**x24x 96	12.00	+.10
36x120	45.00	—.20	24x101	12.60	+.10
42x 96	42.00	—.05	24x120	15.00	+.10
42x120	52.20	—.05	26x 96	13.00	+.10
48x 96	48.00	+.05	26x120	16.30	+.10
48x120	60.00	+.05	28x 72	10.50	+.10
No. 22x24x 96	20.00	—.05	28x 84	12.25	+.10
24x101	21.00	—.05	28x 96	14.00	+.10
24x120	25.00	—.05	28x108	15.80	+.10
26x 96	21.70	—.05	28x120	17.50	+.10
26x120	27.10	—.05	30x 96	15.00	+.10

(Continued on next page)

Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hoists Strap Cha
Boiler Specialt Tool
Machinery Hand an Powe
Tables
All Whse Cuttin Extr

ONE PASS COLD ROLLED BOX ANNEALED SOFT STEEL SHEETS

(Continued)

Sizes in Stock and Estimated Weights

Gauge Size	Est. Wt. per Sheet	Ded. or Add to Base Price
No. 26x30x120	18.80	$+.10
36x 96	18.00	+.10
36x120	22.50	+.10
42x 96	21.00	+.50
42x120	26.30	+.50
No. 27x24x 96	11.00	+.15
24x101	11.60	+.15
26x120	14.94	+.15
28x 96	12.80	+.15
28x120	16.00	+.15
30x 96	13.80	+.15
30x120	17.20	+.15
36x 96	16.50	+.15
36x120	20.63	+.15
No. 28x24x 96	10.00	+.25
24x101	10.50	+.25
24x120	12.50	+.25
26x 96	10.80	+.25
26x120	13.53	+.25
28x 72	8.80	+.25
28x 84	10.20	+.25
28x 96	11.70	+.25
28x108	13.10	+.25
28x120	14.60	+.25
30x 96	12.50	+.25
30x120	15.60	+.25
36x 96	15.00	+.35
36x120	18.75	+.35

Gauge Size	Est. Wt. per Sheet	Ded. or Add to Base Price
No. 29x24x101	9.50	$+.40
No. 30x24x 96	8.00	+.50
24x101	8.42	+.50
30x 96	10.00	+.50

Can furnish these One Pass Cold Rolled Sheets in

Copper Bearing Steel from Mill—"Better than Iron."

We wish to explain that the Minus Sign (—) means to deduct the amounts so shown from the base price that may be quoted, and Plus Sign (+) indicates that amount shown is to be added to base price.

Our Sheet Steel is rolled to U. S. Standard Gauge.

Sheets cut to any desired size. See Page 152.

Weights shown above are for estimating purposes and are subject to a variation of 2½%.

Wellsville Polished Sheet Steel, Copper Bearing

A handsome dark blue polished product, especially adapted for high class stoves, ranges, stove-pipe elbows, etc., also recommended for Locomotive Jackets. This material contains a small percentage of copper, thereby increasing the life and adding to the already fine quality of this stock. Put up in bundles of about 150 lbs.

Size, Inches.	Est. Weight per Sheet, Pounds.	Size, Inches.	Est. Weight per Sheet, Pounds.
No. 18x24x101	33.70	**No. 24**x24x101	16.80
30x101	42.10	30x101	21.10
20x24x101	25.30	**26**x24x101	12.60
30x101	31.60	28x101	14.70
22x24x101	21.10	30x101	15.80
30x101	26.30	**27**x24x101	11.60
		28x101	13.50
		30x101	14.50

OPEN HEARTH LONG TERNE OR LEAD-COATED SHEETS.

These sheets are manufactured from Steel specially selected and coated with a mixture of tin and lead.

Better than Galvanized Steel—used for automobile hoods, fenders, mud guards, gasoline tanks, etc., and for Fireproof Construction, such as doors, door casings, etc. Put up in bundles of about 150 lbs.

Size, Inches.	Est. Weight per Sheet, Pounds.	Size, Inches.	Est. Weight per Sheet, Pounds.
No. 16x36x120	75.00	**No. 22**x32x 80	22.50
18x36x120	60.00	32x 94	26.50
20x36x 70	22.00	36x 96	30.00
36x 96	36.00	36x120	37.50
36x120	45.00	**24**x36x120	30.00
22x26x116	26.25	**26**x36x120	22.50

Weights shown above are for estimating purposes and are subject to the following variations:

Gauges Nos. 10 to 16, inclusive.....5 % variation
" " 18 and lighter.....2½% "

GALVANIZED SHEET STEEL.

In Stock and Estimated Weights.

Size	Est. Wt. per Sheet	Ded. or Add to Base Price
No. 10x30x 96	115.6	$—.70
30x120	144.5	—.70
36x 96	138.8	—.70
36x120	173.4	—.70
42x 96	161.8	—.60
42x120	202.3	—.60
48x 96	185.0	—.50
48x120	231.2	—.50
No. 12x30x 96	90.6	—.60
30x120	113.3	—.60
36x 96	108.8	—.60
36x120	135.9	—.60
42x 96	126.8	—.50
42x120	158.7	—.50
48x 96	145.0	—.40
48x120	181.2	—.40
No. 14x30x 96	65.6	—.60
30x120	82.0	—.60
36x 96	78.8	—.60
36x120	98.4	—.60
42x 96	91.9	—.50
42x120	114.8	—.50
48x 96	105.0	—.40
48x120	131.2	—.40
No. 16x24x 96	42.5	—.50
24x120	53.1	—.50
26x 96	46.0	—.50
26x120	57.5	—.50
28x 96	49.0	—.50
28x108	55.3	—.50
28x120	62.0	—.50
30x 96	53.1	—.50
30x120	66.4	—.50
36x 96	63.8	—.50
36x120	79.7	—.50
42x 96	74.4	—.40
42x120	93.0	—.40
48x 96	85.0	—.30
48x120	106.2	—.30
No. 18x24x 96	34.5	—.35
24x120	43.1	—.35
26x 96	37.4	—.35
26x120	46.7	—.35
28x 72	30.2	—.35
28x 84	35.2	—.35
28x 96	40.2	—.35
28x108	45.3	—.35
No. 18x28x120	50.3	$—.35
30x 96	43.1	—.35
30x120	53.9	—.35
36x 96	51.8	—.35
36x120	64.7	—.35
42x 96	60.4	—.25
42x120	75.5	—.25
48x 96	69.0	—.15
48x120	86.2	—.15
No. 20x24x 96	26.5	—.20
24x120	33.1	—.20
26x 96	28.7	—.20
26x120	35.8	—.20
28x 72	23.2	—.20
28x 84	27.1	—.20
28x 96	30.9	—.20
28x108	34.8	—.20
28x120	38.6	—.20
28x144	46.4	—.10
30x 96	33.1	—.20
30x120	41.4	—.20
36x 96	39.8	—.20
36x120	49.7	—.20
42x 96	46.4	+.10
42x120	58.0	+.10
48x 96	53.0	+.20
48x120	66.2	+.20
No. 22x24x 96	22.5	—.15
24x120	28.1	—.15
26x 96	24.4	—.15
26x120	30.5	—.15
28x 72	19.7	—.15
28x 84	23.0	—.15
28x 96	26.2	—.15
28x108	29.5	—.15
28x120	32.8	—.15
28x144	39.4	—.05
30x 96	28.1	—.15
30x120	35.2	—.15
36x 96	33.8	—.15
36x120	42.2	—.15
42x 96	39.4	+.25
42x120	49.2	+.25
48x 96	45.0	+.45
48x120	56.2	+.45
No. 24x24x 96	18.5	Base
24x120	23.1	"

(Continued on next page)

GALVANIZED SHEET STEEL.

(Continued)

In Stock and Estimated Weights.

Size	Est. Wt. per Sheet	Ded. or Add to Base Price	Size	Est. Wt. per Sheet	Add to Base Price
No. 24x 26x 96	20.0	Base	**No. 27**x24x 96	13.5	$+.35
26x120	25.0	"	24x120	16.9	+.35
28x 72	16.2	"	26x 96	14.6	+.35
28x 84	18.9	"	26x120	18.3	+.35
28x 96	21.6	"	28x 96	15.7	+.35
28x108	24.3	"	28x120	19.7	+.35
28x120	27.0	"	30x 96	16.9	+.35
28x144	32.4	$+.10	30x120	21.1	+.35
30x 96	23.1	Base	36x 96	20.3	+.45
30x120	28.9	"	36x120	25.3	+.45
30x132	31.8	+.10	**No. 28**x24x 96	12.5	+.50
36x 96	27.8	Base	24x120	15.6	+.50
36x120	34.7	"	26x 96	13.5	+.50
42x 96	32.4	+.40	26x120	16.9	+.50
42x120	40.5	+.40	28x 72	10.9	+.50
48x 96	37.0	+.60	28x 84	12.8	+.50
48x120	46.2	+.60	28x 96	14.6	+.50
No. 26x24x 96	14.5	+.25	28x108	16.4	+.50
24x120	18.1	+.25	28x120	18.2	+.50
26x 96	15.7	+.25	28x144	21.8	+.60
26x120	19.6	+.25	30x 96	15.6	+.50
28x 72	12.7	+.25	30x120	19.5	+.50
28x 84	14.8	+.25	30x144	21.5	+.60
28x 96	16.9	+.25	36x 96	18.8	+.70
28x108	19.0	+.25	36x120	23.4	+.70
28x120	21.1	+.25	**No. 30**x24x 96	10.5	+.90
28x144	25.4	+.35	24x120	13.1	+.90
30x 96	18.1	+.25	26x 96	11.4	+.90
30x120	22.7	+.25	26x120	14.2	+.90
30x132	25.0	+.35	28x 96	12.3	+.90
30x144	27.3	+.35	28x120	15.3	+.90
36x 96	21.8	+.25	30x 96	13.1	+.90
36x120	27.2	+.25	30x120	16.4	+.90
42x 96	25.4	+.85	36x 96	15.8	+1.10
42x120	31.7	+.85	36x120	19.7	+1.10

☛We wish to explain that Minus Sign (—) means to deduct the amount so shown from the base price quoted, and the Plus Sign (+) indicates that amounts so shown are to be added to the base price.

Sheets cut to any desired size. See Page 152.

See page 56 for "Keystone" Copper Bearing Steel—"Better than Iron."

Weights shown above are for estimating purposes and are subject to the following variation:

Gauges No. 10 to 16, incl., 5% variation.

Gauges No. 18 and lighter, 2½% variation.

WRITE FOR PRICES

Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hangers
Boiler Specialties Tools
Machinery Hand and Power
Tables
Whse Cutting Extra

GALVANIZED COPPER BEARING STEEL

STEEL AND COPPER PERFECTLY AMALGAMATED.

KEYSTONE

Greatest Weather, Water, Gas and Smoke Resisting Qualities.

SIZES IN STOCK

Size	Est. Wt. per Sheet	Ded. or Add to Base Price of Reg. Galv.
No. 10x30x 96	115.60	$— .45
30x120	144.50	— "
36x 96	138.80	— "
36x120	173.40	— "
42x 96	161.80	— .35
42x120	202.30	— "
48x 96	185.00	— .25
48x120	231.20	— "
No. 12x30x 96	90.60	— .35
30x120	113.30	— "
36x 96	108.80	— "
36x120	135.90	— "
42x 96	126.80	— .25
42x120	158.70	— "
48x 96	145.00	— .15
48x120	181.20	— "
No. 14x30x 96	65.60	— .35
30x120	82.00	— "
36x 96	78.80	— "
36x120	98.40	— "
42x 96	91.90	— .25
42x120	114.80	— "
48x 96	105.00	— .15
48x120	136.20	— "
No. 16x24x 96	42.50	— .25
24x120	53.10	— "
28x 96	49.00	— "
28x120	62.00	— "
30x 96	53.10	— "
30x120	66.40	— "
36x 96	63.80	— "
36x120	79.70	— "
42x 96	74.40	— .15
42x120	93.00	— "
48x 96	85.00	— .05
48x120	106.20	— "
No. 18x24x 96	34.50	— .10
24x120	43.10	— "
28x 84	35.20	— "
No. 18x28x 96	40.20	$— .10
28x108	45.30	— "
28x120	50.30	— "
30x 96	43.10	— "
30x120	53.90	— "
36x 96	51.80	— "
36x120	64.70	— "
42x 96	60.40	Base
42x120	75.50	"
48x 96	69.00	+ .10
48x120	86.70	+ "
No. 20x24x 96	26.50	+ .05
24x120	33.10	+ "
26x 96	28.7	+ "
26x120	35.8	+ "
28x 72	23.20	+ "
28x 84	27.10	+ "
28x 96	30.90	+ "
28x108	34.80	+ "
28x120	38.60	+ "
30x 96	33.12	+ "
30x120	41.40	+ "
36x 96	39.80	+ "
36x120	49.70	+ "
48x 96	53.00	+ .45
No. 22x24x 96	22.50	+ .10
24x120	28.10	+ "
28x 72	19.70	+ "
28x 84	23.00	+ "
28x 96	26.20	+ "
28x108	29.50	+ "
28x120	32.80	+ "
30x 96	28.12	+ "
30x120	35.20	+ "
36x 96	33.80	+ "
36x120	42.20	+ "
42x 96	39.40	+ .50
42x120	49.20	+ "

(Continued on next page)

GALVANIZED COPPER BEARING STEEL

STEEL AND COPPER PERFECTLY AMALGAMATED.

KEYSTONE

Greatest Weather, Water, Gas and Smoke Resisting Qualities.

SIZES IN STOCK
(Continued)

Size	Est. Wt. per Sheet	Ded. or Add to Base Price of Reg. Galv.	Size	Est. Wt. per Sheet	Ded. or Add to Base Price of Reg. Galv.
No. 24x24x 96	18.50	$+.25	**No. 26**x28x 96	16.90	$+.50
24x120	23.10	+ "	28x108	19.00	+ "
28x 72	16.20	+ "	28x120	21.10	+ "
28x 84	18.90	+ "	30x 96	18.10	+ "
28x 96	21.60	+ "	30x120	22.70	+ "
28x108	24.30	+ "	36x 96	21.80	+ "
28x120	27.00	+ "	36x120	27.20	+ "
30x 96	23.12	+ "	**No. 27**x24x 96	13.5	+.60
30x120	28.90	+ "	28x 96	15.70	+ "
36x 96	27.80	+ "	30x 96	16.90	+ "
36x120	34.70	+ "	**No. 28**x24x 96	12.50	+.75
No. 26x24x 96	14.50	+.50	28x 96	14.60	+ "
24x120	18.10	+ "	28x120	18.20	+ "
26x 96	15.70	+ "	30x 96	15.60	+ "
28x 72	12.70	+ "	30x120	19.50	+ "
28x 84	14.80	+ "	36x 96	18.8	+.95

We have KEYSTONE sheets
Corrugated—Gauges No. 14 and lighter
IN STOCK in both 2½ and 1¼ inches corrugations

Can furnish from mill any gauge or thickness, black or galvanized.

☛We wish to explain that Minus Sign (—) means to deduct the amount so shown from the base price quoted, and the Plus Sign (+) indicates that amounts so shown are to be added to base price. Sheets cut to any desired size, see page 152.

Weights shown above are for estimating purposes and are subject to same variation as shown at bottom of page 55.

Tubes Rivets
Bolts, Nuts Washers Lugs
Trolley Hoist Strap Chr
Boiler Specialtie Tools
Machinery Hand a Powe
Tables
Whse Cuttin Extr

CORRUGATED SHEETS. IN STOCK

Plain Black or Black Steel Painted — Size	Est. Weight per sq. in Pounds — Corrugations 1¼″	2½″
No. 14 x 26 x 96		
" x 108		338
" x 120		
No. 16 x 26 x 96		
" x 108	270	270
" x 120		
No. 18 x 26 x 96		
" x 108	216	216
" x 120		
No. 20 x 26 x 72		
" x 84		
" x 96	163	163
" x 108		
" x 120		
No. 22 x 26 x 72		
" x 84		
" x 96	136	136
" x 108		
" x 120		
No. 24 x 26 x 72		
" x 84		
" x 96	109	109
" x 108		
" x 120		
No. 26 x 26 x 72		
" x 84		
" x 96	82	82
" x 108		
" x 120		
No. 27 x 26 x 72		
" x 84		
" x 96	75	75
" x 108		
" x 120		
No. 28 x 26 x 72		
" x 84		
" x 96	68	68
" x 108		
" x 120		

GALVANIZED — Size	Est. Weight per sq. in Pounds — Corrugations 1¼″	2½″
No. 14 x 27½ x 96		
" x 120		353
No. 16 x 26 x 72		
" x 96	286	286
" x 120		
No. 18 x 26 x 72		
" x 84		
" x 96	232	232
" x 101		
" x 108		
" x 120		
No. 20 x 26 x 72		
" x 84		
" x 96	178	178
" x 108		
" x 120		
" x 144		
No. 22 x 26 x 72		
" x 84		
" x 96	151	151
" x 108		
" x 120		
" x 144		
No. 24 x 26 x 72		
" x 84		
" x 96	125	125
" x 108		
" x 120		
" x 144		
No. 26 x 26 x 72		
" x 84		
" x 96	98	98
" x 108		
" x 120		
" x 144		
No. 27 x 26 x 72		
" x 84		
" x 96	91	91
" x 108		
" x 120		
No. 28 x 26 x 72		
" x 84		
" x 96	84	84
" x 108		
" x 120		
" x 144		

Also have in stock, Corrugated Galvanized Keystone Copper Bearing Sheets

CORRUGATED SHEETS

WEIGHTS ON PAGE 60 ARE APPROXIMATE.

Commercial Practice permits of weight variations of 2½% either way on Gauges 17 to 30, inclusive, and 5% either way on Gauges No. 16 to No. 8.

The widths shown are after corrugating.

The size commonly used and furnished by us, unless otherwise specified, is 26″ *after* corrugating, 2½″ corrugations—covering 24″ wide when lapped one corrugation. Sheets 27½″ *after* corrugating 2½″ also cover 24″ wide when lapped one and one-half corrugations. Sheets corrugated 1¼″ finish narrower than sheets with larger corrugations but covering width is the same.

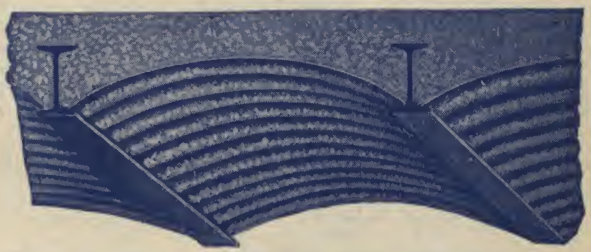
A square is 100 square feet of material.

Can corrugate No. 14 gauge and lighter, black and galvanized to 27½″ wide if preferred, or can corrugate any width of sheets desired up to 48″ before corrugating. We have our own corrugating machinery and can ship *at once*.

CORRUGATED ARCHES

2½-inch Corrugation

Sheets bent to any radius desired can be furnished at special prices. See page 60 for Corrugated Sheets.



Curved corrugated used with beams curved for ceilings, awnings, bridge floors, canopies, culverts, etc.

Curved for canopy, straight for roofing, siding, partitions etc. Curved sheets are furnished only in 2½-inch corrugations.

Tubes
Rivets
Bolts, Nuts
Washers
Lugs
Trolley
Hoists
Stran
Cha
Boiler
Specialt
Tool
Machinery
Hand an
Powe
Tables
al Whse
Cuttin
Extr

BOILER TUBES.

Sizes in Stock Indicated by Check.

"FOR STATIONARY AND MARINE SERVICE." SEE BOTTOM OF PAGE 63.

Soft Steel Lapwelded Boiler Tubes, Shelby Seamless Steel Boiler Tubes and Knobbled Charcoal Iron Lapwelded Boiler Tubes.

SIZE Dia. In.	L'gth Ft.	L'gth In.	Lap-weld Steel	Seamless	Knobbled Charcoal Iron
1	x12	0	...	√	...
	16	0	...	...	...
	18	0	...	...	...
1¼	x10	0	...	√	...
	12	0	...	√	...
	14	0	...	√	...
	16	0	...	...	...
	18	0	...	...	...
1½	x10	0	...	√	...
	12	0	...	√	...
	14	0	...	√	...
	16	0	...	√	...
	18	0	...	√	...
1¾	x	2 0	...	...	...
		3 0	...	...	...
		3 6	...	...	...
		4 0	√	...	...
		5 0	√	√	...
		5 6	√	√	...
		6 0	√	√	...
		6 6	√	√	...
		7 0	√	√	...
		8 0	√	√	...
		10 0	√	√	...
		12 0	√	√	...
		14 0	√	√	...
		15 0	√	...	...
		16 0	√	√	...
		18 0	√	√	...
		20 0	√	√	...
2	x	2 0	√	...	√
		2 6	√	...	√
		3 0	√	...	√
		3 6	√	√	√
		4 0	√	√	√
		4 6	√	...	√
		5 0	√	√	√
		5 6	√	√	√
		6 0	√	√	√
		6 6	√	√	√
		7 0	√	√	√
		7 6	√	√	√
		8 0	√	√	√
		8 6	...	...	...
		9 0	√	√	√

SIZE Dia. In.	L'gth Ft.	L'gth In.	Lap-weld Steel	Seamless	Knobbled Charcoal Iron
2	x10	0	√	√	√
	11	0	√	√	...
	12	0	√	√	√
	13	0	√	√	√
	14	0	√	√	√
	15	0	√	...	√
	16	0	√	√	√
	18	0	√	√	√
	20	0	√	√	√
2¼	x10	0	√	√	...
	12	0	√	√	...
	14	0	√	√	...
	16	0	√	√	...
	18	0	√	...	...
2½	x	3 0	√	...	...
		4 0	√	√	...
		5 0	√	√	√
		5 6	√	...	√
		6 0	√	√	√
		6 6	√	√	√
		7 0	√	√	√
		7 6	√	√	√
		8 0	√	√	√
		9 0	√	√	√
		10 0	√	√	√
		12 0	√	√	√
		14 0	√	√	√
		15 0	√	√	√
		16 0	√	√	√
		18 0	√	√	√
		20 0	...	...	...
2¾	x10	0	√	...	...
	12	0	√	√	...
	14	0	√	√	...
	16	0	√	√	...
	18	0	√	√	...
3	x	4 0	√	...	...
		5 0	√	...	...
		6 0	√	√	√
		7 0	√	√	√
		7 6	√	√	...
		8 0	√	√	√
		9 0	√	√	√
		10 0	√	√	√

SIZE Dia. In.	L'gth Ft.	L'gth In.	Lap-weld Steel	Seamless	Knobbled Charcoal Iron
3	x11	0	√	√	...
	12	0	√	√	√
	13	0	√	√	...
	14	0	√	√	√
	15	0	√	√	√
	16	0	√	√	√
	18	0	√	√	√
	20	0	√	√	√
	22	0	√	√	...
3¼	x10	0	√	...	...
	12	0	√	√	...
	14	0	√	√	...
	16	0	√	√	...
3½	x10	0	√	√	√
	11	6	√	√	√
	12	0	√	√	√
	12	6	√	√	...
	13	0	√	√	...
	14	0	√	√	√
	16	0	√	√	√
	18	0	√	√	√
	20	0	√	√	...
4	x12	0	√	√	√
	14	0	√	√	√
	15	0	√	√	√
	16	0	√	√	√
	17	0	√	√	√
	18	0	√	√	√
	20	0	√	√	√
	21	0	√	√	...
	22	0	√	√	√
4½	x16	0	√	...	√
	18	0	√	√	√
	20	0	√	√	√
	22	0	√	√	√
5	x16	0	√	...	...
	18	0	√	...	...
	20	0	√	...	...
	22	0	√	...	...
6	x16	0	√	...	...
	18	0	√	...	...
	20	0	√	...	...
	22	0	√	...	...
	24	0	√	...	...

Can cut tubes to length at small additional expense.
We carry copper ferrules, see page 106.

EXTRAS AND WGTS. SHOWN ONLY ON SIZES CARRIED IN STOCK.

(Continued)

Size	Size Ext.	Est. Weight per 100	Size	Size Ext.	Est. Weight per 100
3-4x2	Base	40.00	**7-8x2½**	Base	63.15
2⅛	"	41.54	2⅝	"	65.20
2¼	"	43.08	2¾	"	67.25
2⅜	"	44.61	2⅞	"	69.30
2½	"	46.15	3	"	71.35
2⅝	"	47.69	3⅛	"	73.40
2¾	"	49.23	3¼	"	75.45
2⅞	"	50.76	3½	"	79.55
3	"	52.30	4	"	87.75
3⅛	"	53.84	4¼	"	91.85
3¼	"	55.38	4½	"	95.95
3½	"	58.45	4¾	"	100.05
3¾	"	61.53	5	"	104.15
4	"	64.60	5¼	.25	108.25
4¼	"	67.68	5½	.25	112.35
4½	"	70.75	5¾	.25	116.45
4¾	"	73.83	6	.25	120.55
5	"	76.90	6½	.25	128.75
5¼	.25	79.98	**1x2**	.05	75.42
5½	.25	83.05	2⅜	.05	83.32
6	.25	89.20	2½	.05	85.96
7-8x1	.25	38.55	2¾	.05	91.22
1⅛	.15	40.60	3	.05	96.49
1¼	.15	42.65	3¼	.05	101.75
1⅜	.15	44.70	3½	.05	107.02
1½	.15	46.75	3¾	.05	112.29
1⅝	.15	48.80	4	.05	117.55
1¾	.15	50.85	4¼	.05	122.82
1⅞	.15	52.90	4½	.05	128.08
7-8x2	Base	54.95	4¾	.05	133.35
2⅛	"	57.00	5	.05	138.62
2¼	"	59.05	5½	.05	149.15
2⅜	"	61.10	6	.30	159.68

Structural Rivets are carried in 200 lb. kegs.
Less than 100 lbs. ½c per lb. extra.
100 lbs. to 199 lbs. 10c per cwt. extra.

WRITE FOR PRICES

Bolts, Nuts Washers Lugs
Trolley Hoists Strand Chs
Boiler Specialti Tools
Machinery Hand an Power
Tables
al Whse Cutting Extra

CONE HEAD

Extras and Weights Shown Only on Sizes Carried in Stock

Size	Size Ext.	Est. Wt. per 100	Size	Size Ext.	Est. Wt. per 100	Size	Size Ext.	Est. Wt. per 100
1-2x 3/4	.60	9.20	**5-8x** 1 5/8	.30	23.84	**11-16x** 1 1/4	.55	25.84
7/8	.60	9.89	1 3/4	.30	24.92	1 3/8	.55	27.12
1	.60	10.58	1 7/8	.30	25.99	1 1/2	.55	28.40
1 1/8	.50	11.27	2	.15	27.07	1 5/8	.55	29.67
1 1/4	.50	11.97	2 1/8	.15	28.15	1 3/4	.55	30.95
1 3/8	.50	12.66	2 1/4	.15	29.23	1 7/8	.55	32.22
1 1/2	.50	13.35	2 3/8	.15	30.30	2	.40	33.50
1 5/8	.50	14.04	2 1/2	.15	31.38	2 1/8	.40	34.78
1 3/4	.50	14.74	2 5/8	.15	32.46	2 1/4	.40	36.05
1 7/8	.50	15.43	2 3/4	.15	33.54	2 3/8	.40	37.33
2	.35	16.12	2 7/8	.15	34.51	2 1/2	.40	38.61
2 1/8	.35	16.82	3	.15	35.69	2 5/8	.40	39.88
2 1/4	.35	17.51	3 1/4	.15	37.85	2 3/4	.40	41.16
2 3/8	.35	18.20	3 1/2	.15	40.00	3	.40	43.71
2 1/2	.35	18.89	3 3/4	.15	42.16	3 1/4	.40	46.26
2 5/8	.35	19.58	3 7/8	.15	43.15	3 1/2	.40	48.82
2 3/4	.35	20.28	4	.15	44.31	3 3/4	.40	51.37
3	.35	21.68	4 1/4	.15	46.47	4	.40	53.92
3 1/4	.35	23.08	4 3/8	.15	47.50	4 1/4	.40	56.47
3 1/2	.35	24.48	4 1/2	.15	48.62	4 1/2	.40	59.03
3 3/4	.35	26.28	4 3/4	.15	50.78	4 3/4	.40	61.58
4	.35	27.28	5	.15	52.93	5	.40	64.13
4 1/2	.35	29.97	5 1/4	.40	55.09	5 1/4	.65	66.68
5	.35	32.74	5 1/2	.40	57.24	5 1/2	.65	69.24
5 1/2	.60	35.51	5 5/8	.40	58.20	5 3/4	.65	71.79
			5 3/4	.40	59.40	6	.65	74.34
5-8x 3/4	.40	16.50	6	.40	61.55			
7/8	.40	17.52	6 1/4	.40	63.40	**3-4x** 1	.25	28.85
1	.40	18.55	6 1/2	.40	65.80	1 1/8	.15	30.99
1 1/8	.30	19.58	7	.40	70.17	1 1/4	.15	31.93
1 1/4	.30	20.61				1 3/8	.15	33.46
1 3/8	.30	21.65				1 1/2	.15	35.00
1 1/2	.30	22.76	**11-16x** 1 1/8	.55	24.57	1 5/8	.15	36.54

Cone Head Rivets are carried in 200 lb. kegs. Less than 100 lbs. of a size, ½c per lb. extra. 100 lbs. to 199 lbs. 10c cwt. extra.

(Continued on next page)

Extras and Weights Shown Only on Sizes Carried in Stock

(Continued)

Size	Size Ext.	Est. Wt. per 100	Size	Size Ext.	Est. Wt. per 100	Size	Size Ext.	Est. Wt. per 100
3-4x1¾	.15	38.08	**7-8x1⅛**	.15	42.9	**7-8x6½**	.25	131.1
1⅞	.15	39.60	1¼	.15	45.0	6¾	.25	135.2
2	Base	41.15	1⅜	.15	47.1	7	.25	139.3
2⅛	"	42.69	1½	.15	49.1	7¼	.25	143.4
2¼	"	44.20	1⅝	.15	51.2	8	.25	155.7
2⅜	"	45.75	1¾	.15	53.2			
2½	"	47.30	1⅞	.15	55.3	**1 x1⅞**	.20	77.5
2⅝	"	48.85	2	Base	57.3	2	.05	79.2
2¾	"	50.38	2⅛	"	59.4	2⅛	.05	83.0
2⅞	"	51.90	2¼	"	61.4	2¼	.05	84.4
3	"	53.45	2⅜	"	63.5	2⅜	.05	87.2
3¼	"	56.53	2½	"	65.5	2½	.05	89.7
3½	"	59.60	2⅝	"	67.6	2⅝	.05	92.3
3¾	"	62.68	2¾	"	69.6	2¾	.05	95.0
4	"	65.75	2⅞	"	71.6	3	.05	100.0
4¼	"	68.83	3	"	73.7	3⅛	.05	102.7
4½	"	71.90	3⅛	"	76.0	3¼	.05	105.5
4⅝	"	73.45	3¼	"	78.0	3½	.05	110.8
4¾	"	74.98	3⅜	"	80.0	3¾	.05	116.0
5	"	78.05	3½	"	82.0	4	.05	121.3
5¼	.25	81.13	3¾	"	86.0	4¼	.05	125.0
5½	.25	84.20	4	"	90.0	4½	.05	131.8
5¾	.25	87.20	4¼	"	94.2	4¾	.05	137.0
6	.25	90.35	4½	"	98.0	5	.05	142.0
6¼	.25	93.50	4⅝	"	100.3	5¼	.30	150.0
6½	.25	96.50	4¾	"	102.4	5½	.30	153.0
6¾	.25	99.58	5	"	106.5	6	.30	163.4
7	.25	102.65	5¼	.25	110.6	6½	.30	177.0
7½	.25	108.80	5½	.25	114.0	7	.30	185.0
8	.25	114.95	5¾	.25	118.8			
8½	.25	121.10	6	.25	122.9			

Cone Head Rivets are carried in 200 lb. kegs. Less than 100 lbs. of a size, ½c per lb. extra. 100 lbs. to 199 lbs. 10c cwt extra.

WRITE FOR PRICES

Bolts, Nuts Washers Lugs
Trolley Hoists Strap Chai
Boiler Specialt Tool
Machinery Hand an Powe
Tables
al Whse Cuttin Extra

SHEET AND TANK RIVETS.

IN STOCK IN 200 LB. KEGS.

(PRICES ARE BASED ON 200 LB. KEGS)

List Prices shown only on sizes carried in stock.

Length of Rivets	ROUND HEAD						CONE HEAD				FLAT HEAD		
	1/8	3/16	1/4	5/16	3/8	7/16	1/4	5/16	3/8	7/16	1/4	5/16	3/8
1/4	....	23	....	....	....	....	....	....	....	....	....	....	....
3/8	29	21	19	....	....	....	....	....	....	....	19	....	....
1/2	22	18	17	16½	16	....	17	16½	16	....	17	16½	16
5/8	22	18	17	16½	16	....	17	16½	16	....	17	16½	16
3/4	21½	17½	16½	16	15½	15½	16½	16	15½	15½	16½	16	15½
7/8	21½	17½	16½	16	15½	15½	16½	16	15½	15½	16½	16	15½
1	21	17	16	15½	15	15	16	15½	15	15	16	15½	15
1 1/8	21	17	16	15½	15	15	16	....	15	15	16	15½	15
1 1/4	21	17	16	15½	15	15	16	15½	15	15	16	15½	15
1 3/8	21	17	16	15½	15	15	16	....	15	15	16	15½	15
1 1/2	21	17	16	15½	15	15	16	15½	15	15	16	15½	15
1 5/8	....	....	16	....	....	....	....	....	....	....	....	....	....
1 3/4	....	17	16	15½	15	15	....	....	....	15	....	15½	....
1 7/8	....	17	16	....	15	....	16	....	15	15	....	15½	15
2	....	17	16	15½	15	15	....	....	15	15	16	....	15
2 1/8	....	20	18	17½	....	....	16	....	15	15	16	15½	15
2 1/4	....	20	18	17½	17	17	....	....	17	....	....	....	17
2 3/8	....	20	18	17½	17	17	....	....	17	17	....	....	17
2 1/2	....	20	18	17½	17	17	....	....	....	17	....	....	17
2 3/4	....	20	18	17½	17	....	....	....	....	....	....	....	....
3	23	20	18	17½	17	17	....	....	....	....	....	....	....

POUND RIVETS (FLAT HEAD)

IN STOCK IN 200 LB. KEGS

Size Weight per M	Dimensions Dia.	Dimensions L'gth	Pr. per lb.	Size Weight per M	Dimensions Dia.	Dimensions L'gth	Pr. per lb.	Size Weight per M	Dimensions Dia.	Dimensions L'gth	Pr. per lb.
2 lbs.	.140	17/64	28	6 lbs.	.200	25/64	20	10 lbs.	.233	15/32	19
2½ "	.147	9/32	25	7 "	.215	13/32	20	12 "	.253	1/2	17
3 "	.160	5/16	24	8 "	.225	7/16	20	14 "	.275	33/64	17
4 "	.173	11/32	22	9 "	.230	29/64	19	16 "	.293	17/32	17
5 "	.185	3/8	21								

For Extras On Less Than 200 Lbs. See Next Page.

We can furnish from mills odd and special rivets of all **kinds.**

PRICE LIST, SHEET TANK AND SMALL RIVETS. Standard Heads.

List Effective May 19, 1920

Old Standard Wire Gauge

CENTS PER POUND IN 200 POUND KEGS†

Rivets are made from scant sized wire so as to fit holes of their rated size

Diameters	Minimum Wire Diameter	LENGTHS															
		6–3¾	3½–2¼	2–1	1⅞–¾	⅝–½	7/16	3/8	11/32	5/16	9/32	¼	7/32	3/16	5/32	1/8	3/32
7/32	.422	17	17	15	15½	16	17	18	19	20	20	..	..	..	..	..	..
3/8	.361	17	17	15	15½	16	17	18	19	20	20	..	..	..	..	..	..
11/32	.330	18½	17½	15½	16	16½	17	18	19	20	20	..	..	..	..	..	..
5/16	.300	18½	17½	15½	16	16½	18	18	19	20	20	..	..	..	..	..	..
No. 1	.288	19	18	16	16½	17	19	19	19	20	20	20	21	..	..	..	..
No. 2	.272	19	18	16	16½	17	19	19	19	20	20	20	21	..	..	..	..
No. 3	.249	19	18	16	16½	17	19	19	19	20	20	20	21	21	..	..	..
¼	.242	19	18	16	16½	17	19	19	19	20	20	20	21	21	..	..	..
No. 4	.230	22	20	17	17½	18	19	20	20	20	20	20	21	21	22	..	..
No. 5	.211	22	20	17	17½	18	20	20	20	21	22	22	23	23	24	24	25
No. 6	.195	22	20	17	17½	18	20	21	21	22	22	23	24	25	25	25	26
5/32	.180	22	20	17	17½	18	20	21	21	22	22	23	24	25	26	27	28
No. 7	.172	..	..	17	17½	19	20	21	21	22	22	23	24	25	26	27	28
No. 8	.156	..	..	18	18½	19	21	22	22	23	23	24	25	26	27	28	29
No. 9	.141	..	..	19	19½	20	22	23	23	25	25	25	26	27	29	31	32
No. 10	.128	..	..	20	20½	21	23	25	27	29	30	30	32	35	37	39	40
9/64	.120	..	..	21	21½	22	26	29	30	32	33	33	35	39	42	44	47
No. 12	.104	..	..	22	22½	23	28	31	32	34	36	37	38	43	47	52	57
No. 13	.090	..	..	26	26½	27	32	36	37	39	41	42	43	47	52	57	62
No. 14	.078	..	..	28	28½	29	37	42	47	52	54	57	60	60	62	65	67

5-64 (Min. Wire Diam. .074) same list as No. 14; 3-32 (.088) same as No. 13; 7-64 (.104) same as No. 12; No. 11 (.113) same as 1/8; 9-64 (.136) same as No. 9; 5-32 (.151) same as No. 8; 11-64 (.165) same as No. 7; 7-32 (.211) same as No. 5; 9-32 (.272) same as No. 2.

Intermediate lengths and diameters take list of nearest smaller size. Rivets made from smaller wire than No. 14 will be quoted on application. Standard Heads are Round—Wagon Box—Truss—Cone—Flat—Flat Countersunk and Pan Heads. All other shaped heads and Headless, Shoulder and Pointed Rivets are special on which prices will be quoted on application.

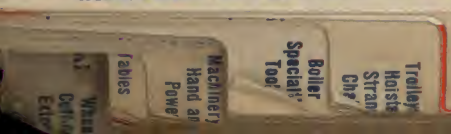
FLATHEAD TINNERS' RIVETS, BLACK.

Description	6 oz.	8 oz.	10 oz.	12 oz.	14 oz.	1 lb.	1¼ lb.	1½ lb.	1¾ lb.	2 lb.	2½ lb.	3 lb.	3½ lb.	4 lb.	5 lb.	6 lb.	7 lb.	8 lb.	9 lb.	10 lb.	12 lb.	14 lb.	16 lb.
Black Rivets in Packages of 1000	28	32	36	41	45	48	54	62	67	72	83	96	1.09	1.20	1.30	1.50	1.75	2.00	2.20	2.40	2.64	3.08	3.52
Bulk	62	52	49	46	43	40	35	33	30	28	25	24	23	22	21	20	20	20	19	19	17	17	17

The above lists apply only on BULK QUANTITIES in 200-lb. kegs. Other packages take the following List Extras:

Packed in 100 Pound Kegs add 1 Cent to above List.
Packed in 50 Pound Boxes add 3 Cents to above List.
Packed in 25 Pound Boxes add 4 Cents to above List.
Packed in 5 or 10 Pound Boxes add 5 Cents to above List.
Packed in 1 Pound Boxes add 8 Cents to above List.

Special finishes such as Metallic Coating, Plating, Tumbling Bright or Polishing after annealing quoted on application. When "Tinned" Rivets are ordered Metallic Tinned are furnished. For sizes carried in stock, see page 68.



MACHINE BOLTS

WITH SQUARE HEADS AND NUTS IN STOCK

Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100
1-4x ¾	$1.40	2.9	3-8x1½	$2.95	9.0	7-16x4½	$7.40	27.2
1	1.45	3.2	1¾	3.25	9.8	5	7.85	29.2
1¼	1.55	3.5	2	3.25	10.5	5½	8.30	31.2
1½	1.60	3.7	2¼	3.60	11.3	6	8.75	33.2
1¾	1.80	3.9	2½	3.60	12.0	6½	9.20	35.2
2	1.80	4.2	2¾	3.90	12.8	7	9.65	37.2
2¼	2.00	4.5	3	3.90	13.5	7½	10.10	39.2
2½	2.00	4.8	3¼	4.25	14.3	8	10.55	41.2
2¾	2.15	5.2	3½	4.25	15.0	1-2x 1	5.20	17.0
3	2.15	5.5	3¾	4.60	15.8	1¼	5.40	18.3
3¼	2.35	5.9	4	4.60	16.5	1½	5.65	19.6
3½	2.35	6.1	4¼	4.90	17.3	1¾	6.10	20.9
4	3.05	6.8	4½	4.90	18.0	2	6.10	22.2
4½	3.20	7.4	4¾	5.55	18.8	2¼	6.55	23.5
5	3.35	8.1	5	5.55	19.5	2½	6.55	24.8
5½	3.50	8.9	5¼	5.85	20.3	2¾	7.00	26.1
6	3.65	9.0	5½	5.85	21.0	3	7.00	27.5
5-16x ¾	2.00	4.5	5¾	6.20	22.3	3¼	7.45	28.8
1	2.10	5.0	6	6.20	22.5	3½	7.45	30.1
1¼	2.20	5.5	6¼	6.50	23.3	3¾	7.90	31.5
1½	2.30	6.0	6½	6.50	24.1	4	7.90	32.8
1¾	2.60	6.5	7	6.85	25.7	4¼	8.35	34.1
2	2.60	7.0	7½	7.15	27.3	4½	8.35	35.4
2¼	2.85	7.5	8	7.50	28.9	4¾	8.80	36.8
2½	2.85	8.0	8½	7.80	30.5	5	8.80	38.1
2¾	3.05	8.5	9	8.15	32.1	5¼	9.25	39.4
3	3.05	9.0	9½	8.45	33.7	5½	9.25	40.7
3¼	3.30	9.5	10	8.80	35.3	5¾	9.70	39.9
3½	3.30	10.0	11	9.50	38.5	6	9.70	43.4
3¾	3.55	10.5	12	10.20	41.7	6½	10.15	46.0
4	3.55	11.0	7-16x1	4.35	13.2	7	10.60	48.7
4¼	4.25	11.5	1¼	4.55	14.2	7½	11.05	50.2
4½	4.25	12.0	1½	4.75	15.2	8	11.50	54.0
4¾	4.50	12.5	1¾	5.20	16.2	8½	11.95	56.8
5	4.50	13.0	2	5.20	17.2	9	12.40	59.5
5¼	4.70	13.2	2¼	5.70	18.2	9½	12.85	62.3
5½	4.70	14.0	2½	5.70	19.2	10	13.30	65.0
5¾	4.90	14.2	2¾	6.10	20.2	10½	14.70	67.8
6	4.90	15.0	3	6.10	21.2	11	14.70	70.5
7	5.35	17.0	3¼	6.55	22.2	11½	15.60	73.3
8	5.80	18.7	3½	6.55	23.2	12	15.60	76.0
3-8x ¾	2.45	6.8	3¾	7.00	22.6	12½	16.50	78.5
1	2.60	7.5	4	7.00	25.2	13	16.50	81.5
1¼	2.75	8.3	4¼	7.40	26.2	13½	17.40	84.2

(Continued on next page)

MACHINE BOLTS

WITH SQUARE HEADS AND NUTS

IN STOCK

(Continued)

Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100
1-2x14	17.40	87.0	5-8x 8½	15.60	92.4	3-4x 5¾	16.80	104.2
15	18.30	92.5	9	16.10	96.5	6	16.80	107.2
16	19.20	98.0	9½	16.60	100.6	6¼	17.45	110.2
17	20.10	103.5	10	17.10	104.8	6½	17.45	113.3
18	21.00	109.0	10½	18.10	109.3	7	18.10	119.4
19	21.90	114.5	11	18.10	113.1	7½	18.75	125.5
20	22.80	120.0	11½	19.10	117.3	8	19.40	131.6
21	23.70	125.5	12	19.10	121.4	8½	20.05	137.7
22	24.60	131.0	12½	20.10	119.3	9	20.70	143.8
23	25.50	136.5	13	20.10	128.7	9½	21.35	149.9
24	26.40	142.0	13½	21.10	142.2	10	22.00	156.0
26	28.20	153.0	14	21.10	138.0	10½	23.30	162.1
28	30.00	155.6	14½	22.10	142.3	11	23.30	168.2
30	31.80	166.0	15	22.10	146.3	11½	24.60	174.3
9-16x1½	8.60	25.0	16	23.10	154.6	12	24.60	180.4
1¾	9.10	26.5	17	24.10	162.9	12½	25.90	186.3
2	9.10	28.3	18	25.10	171.2	13	25.90	192.6
2¼	9.60	29.9	19	26.10	179.6	13½	27.20	198.7
2½	9.60	31.6	20	27.10	187.8	14	27.20	204.8
5-8x1	8.10	30.2	21	28.10	195.6	14½	28.50	210.9
1¼	8.35	32.3	22	29.10	204.4	15	28.50	217.0
1½	8.60	34.3	24	31.10	221.0	15½	29.80	223.1
1¾	9.10	36.4	26	33.10	237.6	16	29.80	229.2
2	9.10	38.4	28	35.10	254.2	17	31.10	241.2
2¼	9.60	40.5	30	37.10	270.8	18	32.40	253.6
2½	9.60	42.5	3-4x 1	10.95	48.5	19	33.70	267.6
2¾	10.10	44.6	1¼	10.95	51.4	20	35.00	278.0
3	10.10	46.7	1½	10.95	54.3	21	36.30	285.0
3¼	10.60	48.8	1¾	11.60	57.2	22	37.60	302.8
3½	10.60	50.8	2	11.60	60.0	23	38.90	315.2
3¾	11.10	52.9	2¼	12.25	62.9	24	40.20	327.6
4	11.10	55.0	2½	12.25	65.7	25	41.50	339.3
4¼	11.60	57.2	2¾	12.90	68.6	26	42.80	352.4
4½	11.60	59.1	3	12.90	71.4	27	44.10	364.6
4¾	12.10	61.4	3¼	13.55	74.3	28	45.40	377.2
5	12.10	63.3	3½	13.55	77.1	30	48.00	402.0
5¼	12.60	65.5	3¾	14.20	80.0	7-8x 1¾	17.60	86.7
5½	12.60	67.4	4	14.20	82.8	2	17.60	90.8
5¾	13.10	69.6	4¼	14.85	85.9	2¼	18.50	95.0
6	13.10	71.6	4½	14.85	88.9	2½	18.50	99.1
6½	13.60	75.5	4¾	15.50	92.0	2¾	19.40	103.3
7	14.10	79.9	5	15.50	95.0	3	19.40	107.4
7½	14.60	84.0	5¼	16.15	98.0	3¼	20.30	111.6
8	15.10	88.2	5½	16.15	101.1	3½	20.30	115.7

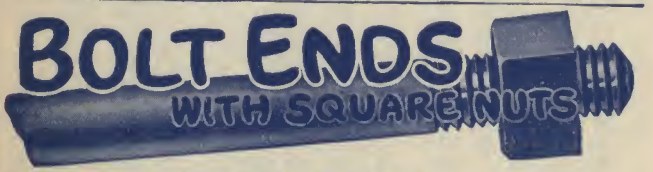
(Continued on next page)

Bolts, Nuts Washers Lugs
Trolley Hoists Strap Chs
Boiler Specialt Tools
Machinery Hand an Powe
Tables
al Whse Cutti Extr

IN STOCK

(Continued)

Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100	Size	List Prices Per 100	Est. Wt. Per 100
7-8x 3¾	21.20	119.9	7-8x20	50.00	389.6	1x 9	40.50	288.6
4	21.20	124.0	21	51.80	406.0	10	42.80	310.2
4¼	22.10	108.2	22	53.60	423.4	11	45.10	331.8
4½	22.10	132.3	23	55.40	440.8	12	47.40	353.4
5	23.00	140.6	24	57.20	457.2	13	49.70	376.7
5½	23.90	148.9	25	59.00	474.8	14	52.00	396.6
6	24.80	157.2	26	60.80	491.0	15	54.30	408.6
7	26.60	173.8	27	62.60	517.0	16	56.60	439.8
8	28.40	190.4	28	64.40	524.8	17	58.90	451.8
9	30.20	207.0	30	68.00	558.6	18	61.20	483.2
10	32.00	223.6	1x 1½	23.25	126.6	19	63.50	504.6
10½	33.80	231.9	2	24.40	131.4	20	65.80	526.2
11	33.80	240.2	2½	25.55	149.0	21	68.10	549.6
12	35.60	256.8	3	26.70	159.0	22	70.40	570.2
12½	37.40	265.1	3½	27.85	169.8	23	72.70	592.8
13	37.40	273.4	4	29.00	180.6	24	75.00	614.2
14	39.20	290.9	4½	30.15	191.4	25	77.30	636.0
15	41.00	306.6	5	31.30	202.2	26	79.60	658.2
16	42.80	323.2	5½	32.45	213.0	27	81.90	680.2
17	44.60	339.8	6	33.60	223.8	28	84.20	702.2
18	46.40	356.4	7	35.90	245.4	29	86.50	722.4
19	48.20	373.0	8	38.20	267.0	30	88.80	746.2

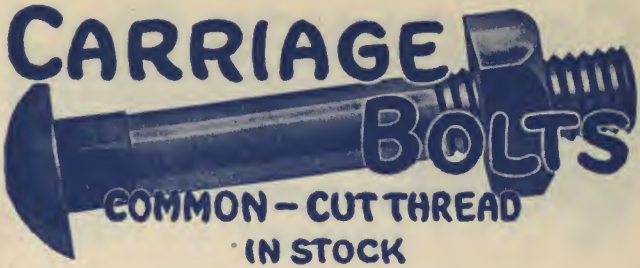


LIST PRICE PER 100 PIECES

Sizes in Stock	Size of Steel	Length in Inches	Est. Wt. per 100 Bolts	Price per 100	Sizes in Stock	Size of Steel	Length in Inches	Est. Wt. per 100 Bolts	Price per 100
√	5/16	6	15	$5.25	√	1¼	14	550	$86.00
√	3/8	7	22	6.25	√	1⅜	15	720	100.80
√	7/16	7	31	7.75	√	1½	16	940	131.60
√	½	8	45	10.50	√	1⅝	17	1165	174.75
√	5/8	9	90	15.00	√	1¾	18	1405	210.75
√	¾	10	140	20.75	√	1⅞	19	1800	270.00
√	⅞	11	212	30.50	√	2	20	2045	306.75
√	1	12	310	44.75	√	2¼	22	3029	545.20
√	1⅛	13	420	67.00	√	2½	24	4071	732.75

Bolt Ends ordered shorter or longer than above standard lengths will be subject to special price.

WRITE FOR DISCOUNTS

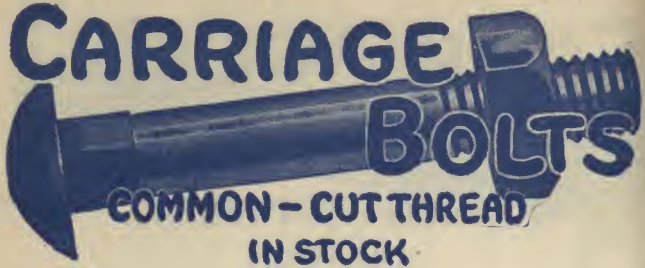


Size	List Prices per 100	Est. Wt. per 100
3-16x ¾	$1.35	1.4
⅞	1.40	1.5
1	1.40	1.6
1¼	1.45	1.7
1½	1.50	2.0
1¾	1.65	2.1
2	1.65	2.3
2¼	1.85	2.5
2½	1.85	2.7
2¾	2.00	2.9
3	2.00	3.1
3¼	2.20	3.3
3½	2.20	3.5
3¾	2.90	3.7
4	2.90	3.9
1-4x ¾	1.35	2.5
1	1.40	2.8
1¼	1.45	3.1
1½	1.50	3.4
1¾	1.65	3.7
2	1.65	4.0
2¼	1.85	4.4
2½	1.85	4.7
2¾	2.00	5.0
3	2.00	5.3
3¼	2.20	5.6
3½	2.20	5.9
3¾	2.90	6.2
4	2.90	6.6
4¼	3.05	6.9
4½	3.05	7.2
4¾	3.20	7.5
5	3.20	7.8
5¼	3.35	8.1
5½	3.35	8.4
5¾	3.50	8.7
6	3.50	9.1
6¼	3.65	9.3
6½	3.65	9.8
6¾	3.85	10.0
7	3.85	10.5

Size	List Prices per 100	Est. Wt. per 100
1-4x7¼	$4.00	10.6
7½	4.00	11.1
7¾	4.20	11.2
8	4.20	11.8
5-16x ¾	1.90	4.4
1	2.00	4.8
1¼	2.10	5.2
1½	2.20	5.7
1¾	2.40	6.1
2	2.40	6.6
2¼	2.65	7.0
2½	2.65	7.5
2¾	2.85	7.9
3	2.85	8.4
3¼	3.10	8.9
3½	3.10	9.3
3¾	3.35	9.8
4	3.35	10.2
4¼	4.05	10.9
4½	4.05	11.2
4¾	4.30	11.8
5	4.30	12.0
5¼	4.50	12.5
5½	4.50	12.9
5¾	4.70	13.3
6	4.70	13.8
6¼	4.90	14.2
6½	4.90	14.7
6¾	5.15	15.2
7	5.15	15.6
7¼	5.35	16.1
7½	5.35	16.5
7¾	5.60	17.0
8	5.60	17.4
8½	5.80	18.4
9	6.05	19.0
9¼	6.25	20.2
10	6.25	20.7
3-8x1	2.45	6.9
1¼	2.60	7.6
1½	2.80	8.3

Size	List Prices per 100	Est. Wt. per 100
3-8x1¾	$ 3.10	9.0
2	3.10	9.7
2¼	3.45	10.4
2½	3.45	11.1
2¾	3.75	11.8
3	3.75	12.5
3¼	4.10	13.2
3½	4.10	13.9
3¾	4.45	14.6
4	4.45	15.3
4¼	4.75	16.0
4½	4.75	16.7
4¾	5.35	17.4
5	5.35	18.0
5¼	5.65	18.7
5½	5.65	19.4
5¾	6.00	20.1
6	6.00	20.8
6¼	6.30	21.5
6½	6.30	22.2
6¾	6.65	22.9
7	6.65	23.6
7¼	6.95	24.4
7½	6.95	25.0
7¾	7.30	25.7
8	7.30	26.4
8½	7.60	27.8
9	7.95	29.2
9½	8.25	30.2
10	8.60	32.0
10½	9.30	33.2
11	9.30	34.8
11½	10.00	36.2
12	10.00	37.5
13	11.10	40.3
14	11.75	41.7
15	12.40	43.1
7-16x1	3.40	9.4
1¼	3.60	10.4
1½	3.80	11.4
1¾	4.25	12.4

(Continued on next page)



(Continued)

Size	List Prices per 100	Est. Wt. per 100	Size	List Prices per 100	Est. Wt. per 100	Size	List Prices per 100	Est. Wt. per 100
7-16x2	$ 4.25	13.2	**1-2x2**	$5.70	20.0	**1-2x17**	$19.70	102.5
2¼	4.75	14.3	2¼	6.15	21.4	18	20.60	108.0
2½	4.75	15.3	2½	6.15	22.8	19	21.50	113.5
2¾	5.15	16.3	2¾	6.60	24.2	20	22.40	119.0
3	5.15	17.3	3	6.60	25.5	**5-8x1½**	8.60	32.0
3¼	5.60	18.3	3¼	7.05	26.9	2	9.10	36.0
3½	5.60	19.3	3½	7.05	28.3	2¼	9.60	38.0
3¾	6.05	20.3	3¾	7.50	29.7	2½	9.60	40.0
4	6.05	21.3	4	7.50	31.0	3	10.10	44.0
4¼	6.45	22.3	4¼	7.95	32.4	3¼	10.60	46.0
4½	6.45	23.3	4½	7.95	33.8	3½	10.60	48.0
4¾	6.90	24.3	4¾	8.40	35.2	4	11.10	52.0
5	6.90	25.3	5	8.40	36.5	4¼	11.60	54.0
5¼	7.35	26.3	5¼	8.85	37.9	4½	11.60	56.0
5½	7.35	26.8	5½	8.85	39.3	4¾	12.10	58.0
5¾	7.80	28.0	5¾	9.30	40.7	5	12.10	60.0
6	7.80	29.3	6	9.30	42.0	5½	12.60	64.0
6¼	8.25	30.3	6¼	9.75	43.4	5¾	13.10	66.0
6½	8.25	31.2	6½	9.75	44.8	6	13.10	68.0
6¾	8.70	32.2	6¾	10.20	46.1	6½	13.60	72.0
7	8.70	33.2	7	10.20	47.5	7	14.10	76.0
7¼	9.15	34.2	7¼	10.65	48.9	7½	14.60	80.0
7½	9.15	35.2	7½	10.65	50.3	8	15.10	84.0
7¾	9.60	36.2	7¾	11.10	51.7	8½	15.60	88.0
8	9.60	37.2	8	11.10	53.0	9	16.10	92.0
8½	10.05	39.2	8½	12.05	55.8	9½	16.60	96.0
9	10.50	41.2	9	12.50	58.5	10	17.10	100.0
9½	10.95	43.2	9½	12.95	61.3	10½	18.10	104.0
10	11.40	45.1	10	13.40	64.0	11	18.10	108.0
10½	12.25	47.1	10½	14.30	66.5	12	19.10	116.0
11	12.25	49.2	11	14.30	69.5	13	20.10	124.0
12	13.10	53.1	11½	15.20	72.5	14	21.10	132.0
13	14.40	57.1	12	15.20	75.0	15	22.10	138.0
14	15.25	61.1	13	16.10	80.5	16	23.10	148.0
15	16.20	65.1	14	17.00	86.0	17	24.10	156.0
1-2x1	4.80	14.7	14½	17.90	89.0	18	25.10	164.0
1¼	5.00	15.9	15	17.90	91.5	19	26.10	172.0
1½	5.25	17.3	16	18.80	97.0	20	27.10	180.0
1¾	5.70	18.6						

WRITE FOR PRICES

Size	List Pr's per 100	Est. Wt. per 100	Size	List Pr's per 100	Est. Wt. per 100	Size	List Pr's per 100	Est. Wt. per 100
1-4x1½	2.15	2.8	**7-16x3**	4.30	15.0	**5-8x7**	12.70	63.2
2	2.35	3.5	4	5.10	19.0	8	14.00	69.3
2½	2.55	4.3	4½	5.50	20.5	9	15.20	76.4
3	2.80	4.8	5	5.90	22.5	10	16.40	83.5
5-16x1½	2.15	3.5	6	6.70	26.0	11	17.70	91.5
2	2.35	4.4	**1-2x1½**	4.85	13.0	12	19.00	99.5
2½	2.55	5.3	2	4.45	15.0	**3-4x3**	11.90	46.1
3	2.80	6.2	2½	4.85	17.3	3½	12.80	51.4
3½	3.05	7.1	3	5.30	19.5	4	13.70	57.1
4	3.30	8.0	3½	5.75	21.6	4½	14.60	62.9
4½	3.55	9.0	4	6.20	23.8	5	15.50	68.8
5	3.80	10.0	4½	6.65	26.3	5½	16.40	74.7
5½	4.05	11.0	5	7.10	28.8	6	17.30	80.5
6	4.35	12.0	5½	7.55	31.3	6½	18.20	86.2
3-8x1½	2.60	5.8	6	8.00	33.8	7	19.10	92.3
2	2.85	7.1	6½	8.45	36.4	7½	20.00	101.7
2½	3.10	7.5	7	8.90	38.9	8	20.90	104.0
3	3.40	9.8	8	9.80	44.0	9	22.65	115.4
3½	3.70	11.1	9	10.70	48.5	10	24.40	126.8
4	4.00	12.5	10	11.60	53.0	11	26.25	143.1
4½	4.30	13.8	12	13.60	63.3	12	28.10	149.5
5	4.65	14.9	**5-8x2**	7.40	26.3	13	29.95	167.6
5½	5.00	16.0	2½	6.85	29.9	14	31.85	161.5
6	5.35	17.2	3	7.50	33.5	**7-8x6**	24.00	106.0
6½	5.70	18.1	3½	8.15	37.1	8	28.80	139.0
7	6.05	20.0	4	8.80	40.7	10	33.20	172.0
7½	6.40	21.4	4½	9.45	44.5	12	37.90	205.0
8	6.75	24.7	5	10.10	48.3	**1x6**	32.75	138.0
7-16x1½	3.90	8.4	5½	10.75	52.6	8	38.95	178.0
2	3.55	10.1	6	11.40	55.7	10	44.65	219.0
2½	3.90	13.0	6½	12.05	60.2	12	50.75	261.0

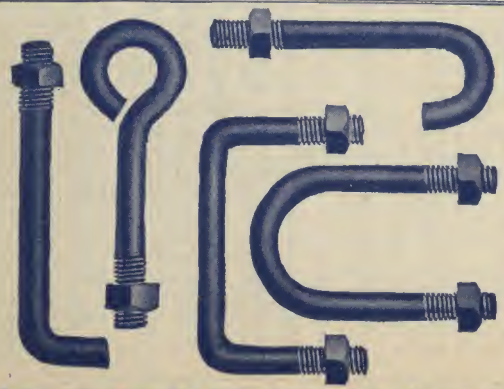
TURNBUCKLES

BRAZIL WROUGHT IRON OPEN HEXAGONAL

We Have Turnbuckles in Stock With and Without Stubs

Sizes in Stock	Size Inches	Opening Inches	Length without ends Inches	Length over all Inches	Approx. Wt. as shown, with stubs, lbs. each	Approx. Wt. as shown, without stubs, lbs. ea.	List Price
.....	5/16	4 1/2	7 1/4	22	.92	.60	$0.38
√	3/8	6	7 1/4	22 1/2	1.06	.59	.45
√	7/16	5 1/2	7 5/16	22 1/2	1.2	.57	.47
√	1/2	6	7 1/2	22 1/2	1.96	1.13	.50
√	5/8	6	7 7/8	22 1/2	2.89	1.58	.60
√	3/4	6	8 1/4	23 1/2	4.55	2.56	.75
√	7/8	6	8 5/8	24 1/2	5.59	2.74	.90
√	1	6	9	25	7.31	3.46	1.10
√	1 1/8	6	9 3/8	25 1/2	8.69	3.72	1.40
√	1 1/4	6	9 3/4	26 1/4	11.34	4.83	1.70
√	1 3/8	6	10 1/8	26 3/4	14.00	6.08	2.10
√	1 1/2	6	10 1/2	27 1/2	17.55	7.72	2.50
.....	1 5/8	6	10 7/8	28 1/4	20.27	8.47	3.25
√	1 3/4	6	11 1/4	28 1/2	23.78	9.77	4.00
√	2	6	12	29 1/2	35.72	16.64	6.25
.....	2 1/4	6	12 3/4	30 1/2	44.98	20.16	9.25
.....	2 1/2	6	13 1/2	32 1/2	62.97	29.07	13.00
.....	2 3/4	9	17 1/4	39 1/2	79.2	35.58	19.20
.....	3	9	18	40 1/2	85.18	32.54	24.60

Sizes not shown in stock shipped promptly from mills.



Hook Bolts—"U" Bolts—Eye Bolts—Anchor Bolts—Stay Rods—Truss Rods—Silo Rods, etc., made to order in our own plant, promptly.

WRITE FOR PRICES

HOT PRESSED NUTS

U. S. STANDARD SQUARE-HEXAGON 200 POUND KEGS

Size of Bolt	Sizes in Stock are indicated by List Prices per 100 pieces							
	Square Blank	Est. Wt. per 100	Square Tapped	Est. Wt. per 100	Hex. Blank	Est. Wt. per 100	Hex. Tapped	Est. Wt. per 100
1-4	.....	.....	$ 0.55	1.1	.....	.....	.....	.....
5-16	$ 0.70	2.7	.75	2.4	.....	.....	.....	.....
3-8	1.00	4.0	1.05	3.7	$ 1.15	3.3	$ 1.20	3.1
7-16	1.40	6.2	1.50	5.9	1.65	5.0	1.75	4.7
1-2	1.85	8.3	2.00	7.9	2.10	6.7	2.25	6.3
9-16	2.10	12.5	2.30	12.0	2.35	9.4	2.55	8.8
5-8	2.55	14.7	2.70	14.0	2.80	13.0	3.00	12.3
3-4	3.60	24.0	3.80	22.7	4.05	20.0	4.30	19.0
7-8	5.65	37.0	6.10	34.6	6.30	32.0	6.80	30.0
1	7.80	53.0	8.30	50.4	8.75	46.0	9.30	43.5
1 1-8	11.25	75.0	11.90	70.0	12.35	69.5	13.10	65.5
1 1-4	14.85	97.0	15.60	90.0	16.50	80.0	17.35	77.0
1 3-8	20.10	137.0	21.00	127.0	22.30	110.0	23.30	106.0
1 1-2	26.95	167.0	28.15	157.0	29.95	139.0	31.30	133.0
1 5-8	38.90	.....	40.85	200.0	.....	.....	45.40	166.0
1 3-4	50.40	270.0	52.50	260.0	56.00	214.0	58.30	200.0
2	75.00	377.0	76.60	357.0	81.20	323.0	85.15	308.0

OVERSIZE HEXAGON NUTS IN STOCK

$\frac{9}{16}$"-$\frac{5}{8}$"-1"-1$\frac{1}{4}$"-1$\frac{3}{8}$"-1$\frac{1}{2}$"-1$\frac{5}{8}$" and 2". Tapped $\frac{1}{32}$" oversize

HEXAGON NUTS

U.S. STANDARD THREAD

SEMI-FINISHED

Sizes in Stock	Size of Bolt	List Price per 100 Pieces	Est. Wt. per 100	Sizes in Stock	Size of Bolt	List Price per 100 Pieces	Est. Wt. per 100
√	$\frac{1}{4}$	$ .75	1.12	√	$\frac{3}{4}$	$ 5.70	20.47
√	$\frac{5}{16}$	1.00	2.24	√	$\frac{7}{8}$	8.75	31.12
√	$\frac{3}{8}$	1.35	3.36	√	1	12.00	44.85
√	$\frac{7}{16}$	1.90	4.66	√	1$\frac{1}{8}$	16.70	61.95
√	$\frac{1}{2}$	2.40	6.73	√	1$\frac{1}{4}$	22.70	79.46
√	$\frac{5}{8}$	4.00	11.36	√	1$\frac{1}{2}$	41.90	136.79

WRITE FOR PRICES

Trolley Hoists Stran Che
Boiler Specialt Too
Machinery Hand an Powe
Tables
al Whse Cuttin Extr

COLD PUNCHED NUTS

U.S. STANDARD THREAD

IN 200 POUND KEGS – IN STOCK

Chamfered, Trimmed, Reamed

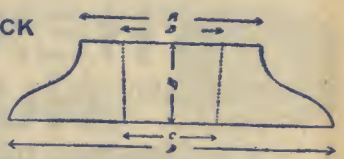
Sizes in Stock indicated by list prices.
List Prices per 100 pieces.

Size of Bolt	Square				Hexagon			
	Blank	Est. Wt. per 100	Tapped	Est. Wt. per 100	Blank	Est. Wt. per 100	Tapped	Est. Wt. per 100
1/4	$ 0.50	1.54	$ 0.55	1.46	.....	.....	$ 0.65	1.15
5/16	.70	2.70	.75	2.56	.....	.....	.90	2.30
3/8	1.00	4.17	1.05	4.00	$ 1.15	3.75	1.20	3.45
7/16	1.40	6.25	1.50	5.88	1.65	5.19	1.75	4.78
1/2	1.85	8.69	2.00	8.33	2.10	7.50	2.25	6.90
9/16	2.60	11.76	2.80	11.10	2.90	9.55	3.10	8.79
5/8	3.05	16.10	3.25	15.40	3.40	12.66	3.60	11.80
3/4	4.40	25.00	4.60	23.80	4.80	22.80	5.10	21.00
7/8	6.75	40.80	7.20	38.40	7.50	34.60	8.00	31.90
1	9.50	58.30	10.00	56.30	10.55	50.00	11.15	46.00
1 1/8	.....	.....	.....	.....	14.80	69.00	15.55	63.50
1 1/4	.....	.....	.....	.....	20.50	87.50	21.40	81.50
1 3/8	.....	.....	.....	.....	.....	.....	.....	.....
1 1/2	.....	.....	.....	.....	.....	.....	.....	.....
1 5/8	.....	.....	.....	.....	.....	.....	.....	.....
1 3/4	.....	.....	.....	.....	73.35	235.00	.....	.....
1 7/8	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	108.85	349.30	112.90	321.40

LIST PRICES SHOWN only on sizes carried in stock.

STANDARD O. G. CAST WASHERS

IN STOCK



Sizes in Stock	Bolt Inches	APPROXIMATE DIMENSIONS A	B	C	D	E	Approximate Weight Each
√	1/2	1 5/16	11/16	5/8	2 1/2	1/2	7 oz.
√	5/8	2	11/16	3/4	3	5/8	12 oz.
√	3/4	2	11/16	7/8	3	3/4	1 lb.
√	7/8	2 1/2	1 1/16	1	3 1/2	7/8	1 lb. 6 oz.
√	1	2 1/2	1 1/16	1 1/8	4	1	2 lb.
√	1 1/8	2 7/8	1 1/16	1 1/4	4 1/2	1 1/8	2 lb. 6 oz.
√	1 1/4	3 1/2	1 1/16	1 3/8	5 1/4	1 1/4	4 lb. 4 oz.
.....	1 3/8	3 1/2	1 1/16	1 1/2	5 1/4	1 1/4	4 lb. 4 oz.
.....	1 1/2	3 1/4	1 1/16	1 5/8	6	1 1/2	6 lb.

WRITE FOR PRICES

"SCULLY" VALVE GUIDE CLEANER

for removing carbon from valve guides

REMOVES ALL CARBON
REMOVES NO METAL

Blades are Self Sharpening

No. 1	Size Range	$\frac{19}{64}$″	to $\frac{11}{32}$″
No. 2	" "	$\frac{11}{32}$″	to $\frac{25}{64}$″
No. 3	" "	$\frac{13}{32}$″	to $\frac{1}{2}$″
No. 4	" "	$\frac{9}{16}$″	to $\frac{5}{8}$″

Price $2.25 Net Each

A set of Nos. 1, 2 and 3 will take in all passenger cars and practically all trucks.

Write for Special Circular

NIBBLING— MINUTES DOWN TO SE

By the use of

CAMPBELL NIBBLING MAC

THE illustration below shows the wide application of the Nibbling Machine for cutting sheet steel and other metals, e drilling and excessive filing. It makes either inside or outside a perfectly smooth edge is obtainable with a minimum of finishin

The metal is not distorted by the cutting action of the Nibbling and no burr is left on the metal, even when very thin sheet through. The machine cuts fast in any direction—30 to 60 inches p

CONDS

HINES

Campbell
eliminating
e cuts, and
ng.

Machine,
cs are run
per minute.

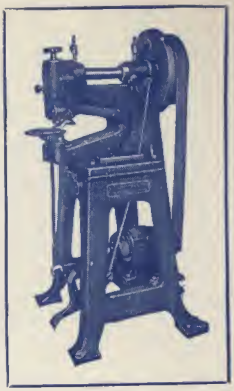


Illustration of No. 2 Machine

Nibbling Machines furnished in six sizes:

No. 0
Capacity $\frac{3}{32}$"
Throat 8"

No. 1
Capacity $\frac{3}{16}$"
Throat 6"

No. 1-A
Capacity $\frac{3}{16}$"
Throat 10"

No. 1-B
Capacity $\frac{3}{16}$"
Throat 24"

No. 2
Capacity $\frac{3}{8}$"
Throat 12"

No. 2-B
Capacity $\frac{3}{8}$"
Throat 30"

All Nibbling Machines listed above are carried in stock Prices and further information will be furnished on request.

Troll... H...

Boiler Special... Too...

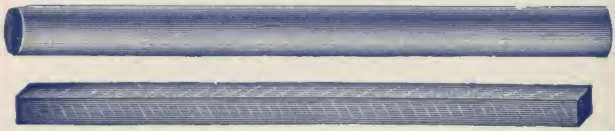
Machinery Hand an... Powe...

Tables

al Whse... Cuttin... Extr...

SOAPSTONE CRAYONS

There is economy in using the better grade of soapstone crayons. The difference in price is not very great. The time lost in resharpening and replacing broken crayons, as well as the waste from breakage, is worth many times the cost of the crayons.



Scully Soapstone Crayons are clear, hard, firm and free from grit. They are cut from selected talc, the best grade obtainable.

If you are not now using Scully Crayons, send for a gross.

See page 101 for sizes carried

STANDARD LIST OF WROUGHT WASHERS

U.S. STANDARD SIZES IN 200 POUND KEGS

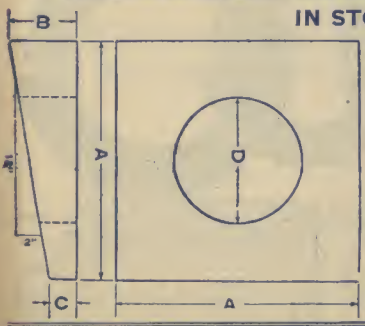
Adopted Jan. 20, 1910

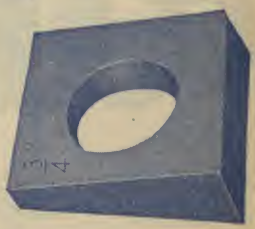
Sizes in Stock	Diam.	Size of Hole	Thickness Wire Gauge	Size of Bolt	Price per Lb., Cents	No. 100 Lbs.
√	⅜	¼	18	⅜	14.00	39400
√	⅝	⅜	16	¼	12.20	15600
√	⅞	⅜	16	⅜	11.40	11250
√	1	⅜	14	⅜	10.50	6800
√	1¼	½	14	⅜	9.80	4300
√	1⅜	⅜	12	½	9.40	2600
√	1½	⅝	12	⅜	9.30	2250
√	1¾	⅝	10	⅝	9.20	1300
√	2	¾	9	¾	9.10	900
√	2¼	⅞	8	⅞	9.00	782
√	2½	1	8	1	9.00	568
√	2¾	1¼	8	1⅛	9.00	473
√	3	1⅜	8	1¼	9.20	364
√	3¼	1½	7	1⅜	9.20	275
√	3½	1⅝	7	1½	9.20	256
.....	3¾	1¾	7	1⅝	9.50	220
√	4	1⅞	7	1¾	9.50	197
.....	4¼	2	7	1⅞	9.50	174
√	4½	2⅛	7	2	9.50	160

Add $0.10 cwt. for 100 lb. kegs. Add $0.50 cwt. for 5 lb. boxes.
Add .20 cwt. for 50 to 100 lb. boxes. Add 1.00 cwt. for 1 lb. boxes.
Add .30 cwt. for 25 to 50 lb. boxes.
Washers of irregular sizes, made to order, will be charged extra.

MALLEABLE BEVEL WASHERS

IN STOCK





Light, strong and will not break. Beveled 2" in 12" which is standard for flanges of Beams and Channels.

Diameter of Bolt	A	B	C	D
⅜ Inch	1¼"	11/32"	5/32"	7/16"
½ "	1¼"	11/32"	5/32"	9/16"
⅝ "	1½"	13/32"	5/32"	11/16"
¾ "	1½"	15/32"	7/32"	13/16"
⅞ "	2"	9/16"	7/32"	15/16"
1 "	2"	9/16"	7/32"	1 3/32"

WRITE FOR PRICES

STANDARD MALLEABLE WASHERS

IN STOCK

Made of high grade malleable iron, strong ribbed, smooth, clean, light in weight and economical.

Packed in 200 pound kegs

Size of Bolt Inches	Diameter Inches	Thickness Inches	Approximate Weight per 100 Washers in Lbs.
1/2	2 1/2	1/4	15
5/8	2 3/4	5/16	22
3/4	3	7/16	33
7/8	3 1/2	7/16	50
1	4	1/2	68
1 1/8	4 1/2	1/2	87
1 1/4	5	5/8	150
1 1/2	6	3/4	190
1 3/4	6	3/4	206
2	7 1/2	3/4	420

S. A. E. LOCK WASHERS

IN STOCK

STANDARD—PLAIN PATTERN

Bolt Size	Steel Section	Price Per M	Approx. Wt. per 1000 in Lbs.
1/4	3/32 x 1/16	$ 3.00	1 3/4
5/16	1/8 x 1/16	4.40	2 3/4
3/8	1/8 x 3/32	5.80	5 1/4
1/2	11/64 x 1/8	12.40	12 1/4
5/8	13/64 x 5/32	25.80	21
3/4	1/4 x 3/16	**40.00**	43
*7/8	17/64 x 17/64	62.40	71
1	5/16 x 1/4	95.00	89

*This is special heavy S. A. E. Standard.

We can also supply Malleable Socket and Spool Washers and Plate Washers of any size or shape. Write us about your washer needs—whatever they may be.

STANDARD SINGLE AND DOUBLE BOLT LUGS
FOR FLAT BANDS, USED FOR TANKS AND KILNS.

Single Bolt Lug

IN STOCK. Double Bolt Lug

ALL MADE OF BEST QUALITY MALLEABLE IRON

Standard List Prices

Sizes of Lugs in Stock	Size of Lug	Size of Bolt	List Without Bolts and Nuts	List With Bolts and Nuts
			Each	Each
√	1½ in. with single bolt	½ in. x 13 in.	$0.27	$0.40
√	1¾ " " " "	½ in. x 13 in.	.36	.50
√	2 " " " "	⅝ in. x 14 in.	.45	.60
√	2½ " " " "	⅝ in. x 16 in.	.65	.80
√	3 " " " "	¾ in. x 18 in.	.80	1.00
√	3½ " " " "	⅞ in. x 18 in.	.90	1.50
√	4 " with double bolts	¾ in. x 18 in.	1.45	2.00
√	4½ " " " "	¾ in. x 18 in.	1.70	2.50
√	5 " " " "	⅞ in. x 18 in.	1.90	3.00
√	5½ " " " "	⅞ in. x 20 in.	2.15	3.25
√	6 " " " "	⅞ in. x 20 in.	2.50	3.50

When ordering give **width** and **thickness** of band.
Lugs with bolts and nuts will be furnished in all cases not otherwise specified.

MALLEABLE IRON BAND LUGS FOR ROUND RODS

IN STOCK.

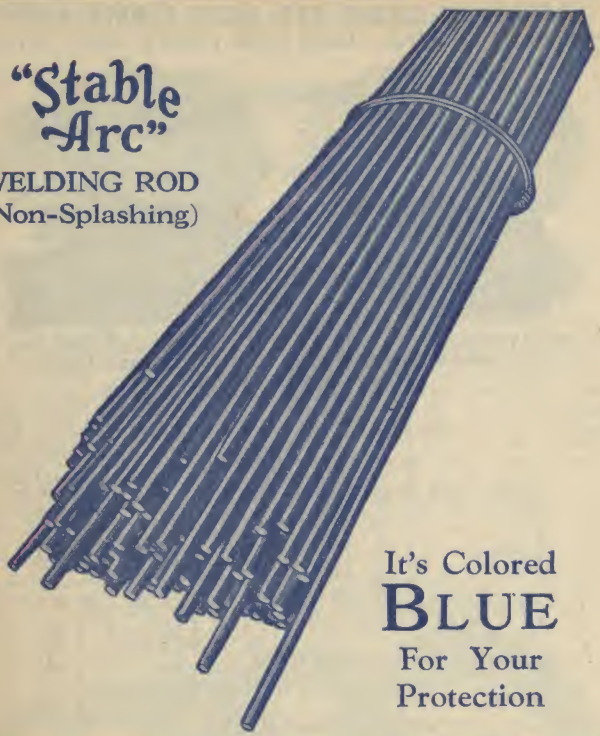
Sizes in Stock	Size of Rod	Approx. wt. per 100 Lug	List Price F.O.B. Chicago
		Lbs.	
√	⅜-in.	45	7c ea.
√	½ "	80	8c "
√	⅝ "	100	10c "
√	¾ "	130	14c "
√	⅞ "	230	20c "
√	1 "	280	24c "
√	1⅛ "	330	36c "
√	1¼ "	450	48c "
√	1½ "	600	72c "

Made of best quality of Malleable Iron, well finished and strong.
If desired, we can furnish these lugs electro galvanized at special prices.

WRITE FOR PRICES

"Stable Arc"

WELDING ROD
(Non-Splashing)



It's Colored
BLUE
For Your
Protection

A dipped welding rod (non-splashing) that you can identify by its blue color. For electrically welding mild steel.

This rod will largely eliminate the splutter and splashing of the hot metal, steady the arc, produce a smoother bead with a remarkably clean finish, and increase the ductility of the weld.

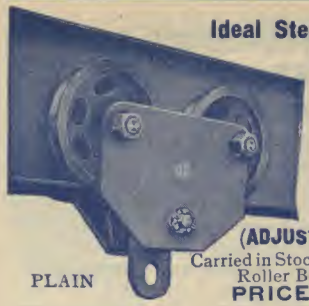
Furthermore, because of the higher current densities permitted by this rod, the speed of welding is materially increased, with lowered welding costs.

We carry in ***STOCK FOR IMMEDIATE SHIPMENT*** $\frac{5}{16}''$, $\frac{1}{4}''$, $\frac{7}{32}''$, $\frac{3}{16}''$, $\frac{5}{32}''$, $\frac{1}{8}''$, and $\frac{3}{32}''$ diameter in 14 inch lengths (standard) and in standard 50 lb. containers. Other diameters and longer rods can be furnished promptly from mill.

★ALSO WELDING RODS FOR ALL PURPOSES

WRITE FOR PRICES

Ideal Steel Plate Trolleys



PLAIN

GEARED

(ADJUSTABLE)
Carried in Stock with Hyatt Roller Bearings
PRICE LIST

Capacity in Tons	Standard Size Light I-Beams to which Trolleys are adjustable, Inches	Diam. of tread of wheel Inches	PLAIN: Price Trolley equipped with Hyatt Roller Bearings	PLAIN: Price Trolley equipped with Solid Roller Bearings	PLAIN: Price Trolley equipped with Plain Bearings	GEARED: Price Trolley equipped with Hyatt Roller Bearings	GEARED: Price Trolley equipped with Solid Roller Bearings	GEARED: Price Trolley equipped with Plain Bearings
½	4, 5, 6 and 7	3¼	$ 16.00	$ 15.00	$ 10.00	.....	.....	.....
1	5, 6, 7 and 8	4¼	22.00	21.00	16.00	$ 35.00	$ 33.00	$ 28.00
2	6, 7, 8 and 9	5¼	30.00	28.00	23.00	40.00	38.00	33.00
3	8, 9, 10 and 12	7¼	40.00	38.00	33.00	60.00	58.00	52.00
4	10, 12 and 15	9⅛	50.00	48.00	43.00	75.00	73.00	68.00
5	12, 15 and 18	11	65.00	62.00	58.00	90.00	88.00	82.00
6	15, 18 and 20	11	75.00	70.00	65.00	100.00	98.00	92.00
8	18, 20 and 24	11¾	95.00	90.00	85.00	120.00	118.00	112.00
10	20 and 24	12¾	110.00	105.00	90.00	140.00	138.00	132.00
15	24	18	175.00	170.00	160.00	200.00	198.00	192.00
20	24	18	250.00	245.00	235.00	250.00	248.00	242.00

Trolleys with Solid Roller Bearings and Plain Bearings furnished promptly from factory

"Matchless" Adjustable Malleable Frame Trolleys

Geared Fig. 122

Plain Fig. 123

IN STOCK
PRICE LIST.

Capacity	Tread Diam'ter of Wheel	Adjustable for Sizes I Beams	Geared Fig. 122	Plain Fig. 123	Bottom of I beam to top of Trolley Bolt
½ tons	4 in.	5 6 7 in.	.....	$32.00	2¼ in.
1 "	4¾ "	6 7 8 "	$70.00	40.00	3⅛ "
1½ "	4¾ "	6 7 8 "	76.00	52.00	3¼ "
2 "	5½ "	7 8 9 "	80.00	56.00	3⅛ "
3 "	6½ "	8 9 10 "	94.00	66.00	3¾ "
4 "	7 "	9 10 12 "	104.00	74.00	3⅞ "
5 "	8 "	10 12 15 "	130.00	86.00	4 "
6 "	8 "	10 12 15 "	160.00	110.00	4 "
8 "	9 "	12 15 18 "	190.00	140.00	4 "
10 "	10 "	15 18 20 24 "	230.00	170.00	4½ "
12 "	10 "	15 18 20 24 "	260.00	220.00	

In ordering please state size and weight of I beam for which the trolley is intended.
WRITE FOR PRICES.

YALE & TOWNE SCREWED-GEARED CHAIN BLOCKS

IN STOCK.

"Duplex."

These are the popular type of double chain worm-wheel or screw blocks, designed especially for lightness and compactness in portable use. Their power and speed is excelled only by the "Triplex" block. They lift 25 per cent faster and easier than other screw blocks and cost no more. Their safety device prevents the load chains slipping and insures against accident to operator or work.

Capacity in Tons	Price Complete	Hoist in Feet	Extra Hoist Price Per Foot	Net Weight in Pounds
½	$ 50.00	8	$2.50	43
1	60.00	8	2.60	57
1½	80.00	8	2.70	76
2	100.00	9	2.80	104
3	150.00	10	3.00	180
4	190.00	10	3.80	215
5	280.00	12	4.00	330
6	360.00	12	5.60	320
8	420.00	12	6.00	380
10	550.00	12	6.40	555

DIFFERENTIAL CHAIN BLOCKS.

IN STOCK.

LIST PRICES.

"Differential."

Capacity in Tons	Price Complete	Hoist in Feet	†Extra Hoist Price per Foot	Net Weight in Pounds
¼	$ 36.00	6	$4.80	22
½	42.00	7	4.80	30
1	56.00	8	5.00	51
1½	72.00	8½	5.40	81
2	90.00	9	5.60	122
3	120.00	9½	6.00	180

†Each additional foot of hoist requires four feet of additional chain.

WRITE FOR PRICES.

YALE BALL-BEARING CHAIN BLOCK

FROM HOOK TO HOOK, A LINE OF STEEL

These are the only hand hoists that can be said to approach the convenience and efficiency of power equipment, and their low cost recommends them, especially for work where the expense of power equipment is prohibitory. They enable one man to swing the heaviest loads with ease and absolute safety. Many large plants have installed "Yale" blocks as individual hoists to supplement their heavy power cranes.

ALL SIZES IN STOCK.

Capacity in Tons.	Price Complete	Hoist in Feet.	Extra Hoist Price per Foot.	Wgt. in Lbs.
¼	$ 70.00	8	$1.80	58
½	70.00	8	1.80	58
1	90.00	8	1.90	91
1½	120.00	8	2.00	131
2	140.00	9	2.10	200
3	180.00	10	3.00	206
4	220.00	10	3.20	293
5	280.00	12	4.30	407
6	330.00	12	4.30	407
8	400.00	12	5.40	497
10	480.00	12	6.50	606
12	600.00	12	8.60	898
16	720.00	12	10 80	1005
20	850.00	12	13.00	1326

These blocks (½ to 20 tons) are standardized so that all sizes are made up of the parts of ½, 1, 1½ and 2-ton blocks. This simplifies the removal of parts. The parts of the 2-ton block fit the 4-ton block and all sizes above.

The sizes from 3 to 20 tons have a lower block.

A Yale quick speed with special gearing is made in two sizes—¼ ton $70.00 and ½ ton $90.00. These blocks are suitable for rapid work in frequent lifting of light loads. They handle light loads at double speed, but require double the chain pull. For easy lifting the Yale Triplex blocks are better, considering the force which a man can exert continuously on the hand chain.

Repair Parts carried in Chicago stock.

WRITE FOR PRICES.

Ford Tribloc

The Tribloc Hoist is a spur gear hoist, having 80% efficiency. This hoist is equipped with our Patented Loop Hand Chain Guide, which protects the flanges of the hand wheel and prevents hand chain from gaging in the hand wheel; ***"Ezeejoin"*** Shackle which eliminates the danger of poor welds and enables the hook to be attached to longer load chains, when required, without welding.

All parts of this hoist are made of malleable iron and steel, with the exception of the handwheel, which is gray iron.

List Prices ¼ to 20 Tons

32 and 40 Ton Prices and Data on Request

Capacity in tons	Price complete regular lift	*Regular lift in feet	Min. distance between hooks inches	Price per foot extra lift	Weights in pounds		Chain pull in lbs. to lift full load	Feet of chain handled to lift load one foot
					Net	Gross		
¼	$70.00	8	13	$1.80	59	77	50	12½
½†	70.00	8	13	1.80	59	77	62	21
1	90.00	8	16	1.90	86	110	80	31
1½	120.00	8	18	2.00	120	150	110	35
2	140.00	9	21	2.10	190	225	120	42
3	180.00	10	32	3.00	202	245	114	70
4	220.00	10	37	3.20	300	353	124	84
5	280.00	12	45	4.30	404	467	110	126
6	330.00	12	46	4.30	414	477	130	126
8	400.00	12	49	5.40	500	578	135	168
10	480.00	12	54	6.50	603	695	140	210
12	600.00	12	54	8.60	939	1093	130	126
16	720.00	12	62	10.80	1050	1216	135	168
20	850.00	12	70	13.00	1268	1436	140	210

*Regular lift in feet equals travel of lower hook.

†We furnish a ½ ton special "Quick Speed" Tribloc. This is the same as the 1 ton regular except that the gears have been changed to double the speed at half the load—list price $90.00.

WRITE FOR DISCOUNTS

The "Cyclone" High Speed Chain Hoists

Important features: Speed, absence of vibration, accurately cut and strong gears; durablity; safety. The bearings have graphite bronze bushings.

"Roller bearings in the yokes and graphite bronze bushings in the frame are features found only in the Cyclone Hoists and account for its unusual wearing qualities and high efficiency."

CAPACITY	Price Complete	Height of Lift	Ex. Chain per foot of Lift	Weight Complete with Chain	Ft. of Chain Handled to Lift Load One Foot
Ton		Ft.		Lbs.	Ft.
½	$ 70.00	8	$1.80	62	20½
1	90.00	8	1.90	85	33
1½	120.00	8	2.00	107	39
2	140.00	9	2.10	160	47
3	180.00	10	2.60	195	69
4	220.00	10	3.20	250	91
5	280.00	12	4.20	386	123
6	330.00	12	4.60	402	140
8	400.00	12	5.00	464	159
10	480.00	12	6.00	610	191
12	600.00	12	6.00	647	195
16	720.00	12	10.00	872	285
20	850.00	12	12.00	1360	336
30	1050.00	12	17.00	1780	504
40	1300.00	12	22.00	2030	670

Sizes ½, 1, 1½, 2 and 3 ton made with single load chain per cut.

Sizes 4 to 10 ton made with a double load chain.

We also handle a full line of other hoists, trolleys, hand traveling cranes, winches and electric hoists.

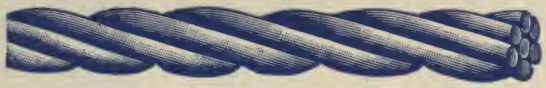
Let us figure with you on this equipment.

Write for hoist catalog and prices.

GALVANIZED STEEL WIRE STRAND.

IN STOCK. For guying Smokestacks, etc.

Full reels contain about 4000 feet.



Revised Standard List, December 19, 1906.

Sizes in Stock	Dia. of Strand	Price per 100 Feet	Approximate Weight per 1,000 feet, lbs.	Approximate Strength in lbs.	Equivalent in Round Iron	7 Wires
√	1/8	$1.00	32	500	.....	No. 20
√	9/16	1.25	75	1,400	.....	17
√	1/4	1.75	125	2,300	3/8 in.	15
√	5/16	2.50	210	3,800	7/16	12
√	3/8	3.50	295	5,000	1/2	11
√	1/2	5.50	510	8,500	3/4	8

Smoke Stack Eye Bolts

Wire Rope Clips

Smoke Stack Eye Bolts sizes carried in stock 3/8", 1/2", 5/8", 3/4" and 7/8". Other sizes made to order.

Wire Rope Clips, black or galvanized, carried in sizes from 3/16" to 1".

SCULLY SERVICE BABBITT

ALLOY NO. 9. This is a high grade Babbitt for general use. It is a suitable bearing for high speed work. It is a standard metal for all purposes except where genuine Babbitt must be used.

We also furnish special alloys for all purposes.

WRITE FOR PRICES.

CHAIN

Proof Tested Steel Chain

In Stock—$\frac{3}{16}$ in., $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{7}{16}$ in., $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{7}{8}$ in., 1 in., $1\frac{1}{8}$ in. and $1\frac{1}{4}$ in.

BB Tested Steel Chain

In Stock—$\frac{3}{16}$ in., $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{7}{16}$ in., $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in. and $\frac{7}{8}$ in.

BBB Tested Steel Chain

In Stock—$\frac{3}{16}$ in., $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{7}{8}$ in., 1 in., $1\frac{1}{8}$ in. and $1\frac{1}{4}$ in.

Proof Tested Twist Link Steel Chain

In Stock—$\frac{3}{16}$ in., $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{7}{16}$ in. and $\frac{1}{2}$ in.

Elwel Truck Chain

(Anti-skid)

In Stock—7-O ($\frac{5}{16}$), 9-O ($\frac{3}{8}$) and 12-O ($\frac{13}{32}$).

Scully H. B. Iron Dredge Chain

The best chain made. Used especially for carrying loads. Our Iron Dredge Chains are made from double refined iron rerolled. Should be used on Cranes, Steam Shovels, Dredges and for similar purposes.

In Stock—$\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{7}{8}$ in., 1 in. and $1\frac{1}{4}$ in.

Test certificates furnished on BB, BBB and Dredge Chain when desired

Special Chains Made to Order

SEE PAGE 93 FOR CHAIN SLINGS, HOOKS, REPAIR LINKS, ETC.

WRITE FOR PRICES

Boiler Specialt' Too'
Machinery Hand an Powe'
Tables
ial Whse Cutt.n Ext'

CHAIN

Trade Size	Size Material	Inside Length of Link			Inside Width of Link			No. of Links Per Foot			Weight Per 100 Feet			Proof Test			Safe Working Load		
		Proof	BB	BBB	Proof	BB	BBB	Proof	BB	BBB	Proof	BB	BBB	Proof	BB	BBB	Proof	BB	BBB
3/16	7/32	61/64	55/64	25/32	13/32	3/8	3/8	12½	14	15½	40	42	43	1045	1155	1300	520	580	650
¼	9/32	1	29/32	55/64	½	7/16	7/16	12	13¼	14	70	75	78	1800	2025	2250	900	1010	1125
5/16	11/32	1 7/64	1 1/32	1	½	½	½	10¾	11¾	12	105	112	115	2720	3050	3400	1360	1525	1700
3/8	13/32	1 15/64	1 5/32	1 3/32	5/8	5/8	5/8	9¾	10½	11	158	162	166	3720	4175	4650	1860	2090	2325
7/16	15/32	1 3/8	1 19/64	1 7/32	¾	11/16	11/16	8¾	9¼	9¾	210	215	220	5000	5625	6250	2500	2810	3125
½	17/32	1½	1 13/32	1 11/32	13/16	¾	¾	8	8½	9	275	285	295	6600	7425	8250	3300	3710	4125
9/16	19/32	1¾	1 5/8	1 9/16	⅞	¾	¾	6⅞	7⅜	7¾	335	345	350	8200	9225	10250	4100	4610	5125
⅝	21/32	1⅞	1¾	1 11/16	1	⅞	⅞	6⅜	6⅞	7⅛	410	425	430	10000	11250	12500	5000	5625	6250
11/16	23/32	2	1⅞	1¾	1 1/16	15/16	15/16	6	6⅜	6⅞	500	515	520	11920	13400	14900	5960	6700	7450
¾	25/32	2⅛	2	1⅞	1⅛	1	1	5⅝	6	6⅜	580	605	615	14150	15900	17700	7075	7950	8850
⅞	29/32	2½	2⅜	2¼	1⅜	1¼	1¼	4¾	5	5⅜	780	815	820	19200	21600	24000	9600	10800	12000
1	1 1/32	2¾	2⅝	2 9/16	1½	1⅜	1⅜	4⅜	4½	4¾	1000	1030	1045	24800	27900	31000	12400	13950	15500
1⅛	1 5/32	3⅛	3	2⅞	1¾	1 11/16	1⅝	3⅞	4	4⅛	1270	1300	1310	31200	35100	39000	15600	17550	19500
1¼	1 9/32	3¼	3⅛	3 1/16	1⅞	1¾	1¾	3¾	3⅞	3⅞	1560	1585	1600	38400	43200	48000	19200	21600	24000
1⅜	1 13/32	3⅞	3¾	3⅝	2	1⅞	1⅞	3⅛	3¼	3¼	1860	1910	1930	46000	51750	57500	23000	25875	28750
1½	1 17/32	4⅛	4	3⅞	2⅛	2	2	2⅞	3	3⅛	2200	2265	2300	54400	61200	68000	27200	30600	34000

CHAIN

CHAIN SLINGS

Chain Slings, either single or double, made quickly to order in Chicago. Give inside diameter of ring, length of chain between ring and hooks and style of hook—slip, grab or sling hook. We can also furnish pear shaped link instead of ring when desired.

Sling Chains can be made of Proof, BB, BBB Tested Steel Chain or Scully HB Dredge Chain.

Sling Hook | Grab Hook | Slip Hook | Cold Shut | Steel Ring | Repair Link

Grab Hooks in stock for—¼ in., 5/16 in., ⅜ in., 7/16 in., ½ in., ⅝ in. ¾ in. and ⅞ in. Chain.

Slip Hooks in stock for—¼ in., 5/16 in., ⅜ in., ½ in., ⅝ in. and ¾ in. Chain.

Cold Shuts in stock for—¼ in., 5/16 in., ⅜ in., 7/16 in., ½ in., ⅝ in. and ¾ in. Chain.

Repair Links in stock—3/16 in., ¼ in., 5/16 in. x 1½ in., ⅜ in. x 1⅝ in., 7/16 in. x 2 in. and ½ in. x 2 in.

Steel Rings in stock for—¼ in., 5/16 in., ⅜ in., 7/16 in., ½ in., ⅝ in., ¾ in., and ⅞ in. Chain.

We also make, quickly to order, Derrick Chains, Log Chains, Switch Chains, Etc.

Steel Loading Chains, Conveyor Chains and Special Link Chains shipped from factory.

SCULLY WELDLESS STEEL BOILER BRACE

LIGHTEST **STRONGEST** **CHEAPEST**

These braces are forged from selected open-hearth steel of 60,000 lbs. tensile strength.

The ends are upset and formed in a heavy forging machine WITHOUT WELDS.

The size of both ends are so designed that the area (after punching out holes), is practically the same at all points.

Brace is easily fitted and will gather little scale.

Accepted by Insurance Companies and State Boiler Inspection Departments.

Will fill A. S. M. E. Requirements.

DIMENSIONS OF BRACES

Diameter of Body	Size of Shell End	Size of Body End
1⅛"	8½"x3¼"x9/16"	6½"x2⅝"x½"
1 3/16"	8½"x3¼"x11/16"	6½"x2⅝"x9/16"
1¼"	8½"x3¼"x11/16"	6½"x2⅝"x11/16"

WEIGHT OF BRACES

Length	1⅛" Diameter	1 3/16" Diameter	1¼" Diameter
24"	11 Lbs.	11½ Lbs.	13½ Lbs.
30"	12½ "	14 "	15 "
36"	14½ "	16 "	18 "
42"	16 "	18 "	19½ "
48"	17½ "	20 "	22 "
54"	19½ "	22 "	24 "
60"	21 "	24 "	26 "
66"	22 "	25½ "	28 "
72"	23½ "	27 "	30 "
78"	26 "	30 "	32 "
84"	27½ "	31 "	34 "
90"	30 "	32½ "	35 "
96"	32 "	35 "	38½ "
102"	34½ "	37½ "	40 "
108"	36½ "	39 "	42 "

WRITE FOR PRICES

SCULLY HERCULES PRESSED STEEL BOILER LUGS

Pressed out of soft steel in one heat, retaining the full strength of the plate at all points. Grooves in base of lug to receive bearing rollers.

Will Fill A. S. M. E. Requirements

PRICE LIST AND DIMENSIONS

Diam. Boiler, Inches.	Height Above Center.	Width of Lug.	Length Projection.	Height on Boiler.	Thickness.	Shipping Weight, Lbs.	Price Each
30	2⅝	7	7	7	5/16	8	$0.78
36	2⅝	7	7	7	¼	10	.94
42	2⅞	8	8	8	¼	12	1.16
48	3⅛	8	8	8	5/16	16	1.34
54	3½	10	10	10	5/16	23	2.00
60	4½	10	10	10	⅜	26	2.32
66	4½	12	12	12	⅜	38	2.92
72	5	12	12	12	7/16	44	3.32
78	6	12	12	12	½	49	3.76
84	7	12	12	12	5/16	55	4.2

TAYLOR SEAMLESS BOILER NOZZLES

250 lb. W. S. P. American Standard

Forged Seamless from the best quality of open hearth steel.

Size Inches	Outer Flange		Approx. Lgth. before Bending C	Saddle Flange		Faced Each	Faced and Drilled Each	Weight Each
	Dia. A	Thickness E		Dia. D	Thickness G			
1½	6	13/16	5	9½	5/8	$12.50	$13.05	20
2	6½	⅞	5	10	5/8	14.50	15.05	21
2½	7½	1	5	13	5/8	19.00	19.95	37
3	8¼	1 1/16	5	13	5/8	19.00	19.95	40
3½	9	1–1/16	6	14	5/8	23.00	24.00	53
4	10	1–¼	6	15	5/8	23.00	24.00	60
4½	10½	1–5/16	6	15½	11/16	25.00	26.15	70
5	11	1–⅜	6	16	11/16	25.00	26.15	75
6	12½	1–7/16	7	17½	¾	27.50	28.90	92
7	14	1–½	7	19	¾	29.50	30.95	110
8	15	1–5/8	7	20	13/16	40.00	41.75	140
10	17½	1–7/8	7	21	13/16	72.00	73.95	170

Dimension "C" is the height of the nozzle before the saddle flange is bent.

PRESSED STEEL BOILER HANGERS

These hangers pressed from flange Steel Plate. No heating or hammering necessary to fit them to boiler. They meet A. S. M. E. specifications.

Size Hanger	36	42	48	54	60	66	72	78	84
Thickness of Material	5/16	¼	5/16	⅜	⅜	½	½	5/8	5/8
Width over all	9⅞	9⅞	11⅝	11⅝	13⅝	13⅝	15½	15½	15½
Height over all	6	6	8½	8½	10¾	10¾	12⅞	12⅞	15¾
Price, each	$0.80	$0.94	$1.32	$1.44	$2.28	$2.50	$3.30	$3.60	$3.90

WRITE FOR PRICES

MANHOLES AND SADDLE PLATES

Flanging and Planing Manhole in Heads, with Cover Plate, Bolts, Pressed Steel Crabs and Gasket.

No.	Size	In Heads Less Than ¾ Inch Thick	Fittings Only (Covers, Bolts, Crabs and Gaskets)	Flanging and Planing Hole Only
1	9x14	$15.50	$7.00	$9.50
2	10x16	15.50	7.00	9.50
3	11x15	15.50	7.00	9.50
5	18x22	36.00	18.00	18.50

Saddle Plate, Flanging and Planing Manhole Cover, Crabs, Bolts and Gasket.

No.	Size	Saddle Plate ⅝ Inch Thick or Less	
		Complete with Fttings	Without Fittings
1	9x14	$20.00	$14.00
2	10x16	20.00	14.00
3	11x15	20.00	14.00
5	18x22	43.00	25.50

Note:—

When ordering Saddle Plates state diameter of shell on which saddle is to be used and whether short dimension is to be lengthwise of shell.

Note:—

Saddle plates fitted with Scully Forged Steel or Pressed Steel Manhead when specified, see page 97.

Hand Holes

Size	Price	Size	Price
2½" x 3½"	$1.60	3½" x 5½"	$2.00
3" x 4"	1.60	4" x 6"	2.40
3½" x 4½"	2.00	5" x 6½"	3.25
3" x 5"	2.00	6" x 8"	3.90
3½" x 5"	2.00	6" x 9"	4.80

The above prices include cast iron plate, crab and bolt only.

MANHOLE SADDLE PLATES

Scully Manhole Saddle Plate are furnished either flat or bent to fit curved shells or dished heads. They are made for either single or double row of rivets, also to fulfill A. S. M. E. requirements. Flanged holes 9" x14", 10"x16", 11"x15" and 18"x22".

See opposite page for prices.

SCULLY MANHEADS

CAST IRON

Size No. 1—9x14, No. 2—10x16, No. 3—11x15. Rubber or lead gasket as desired, and pressed steel crabs.

No. 5—18x22. Poured lead gasket and cast iron crabs.

See opposite page for prices.

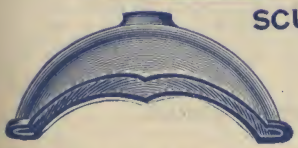
PRESSED STEEL

Sizes 10x16 and 11x15. Bolts 1¼", special high grade rubber gasket. Cover plate has handles for easy handling.

Meets A.S.M.E. specification.

See opposite page for prices.

SCULLY PRESSED CRABS



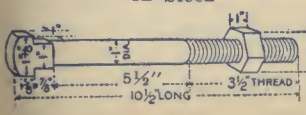
Pressed from steel plates. Suitable for No. 1, 2 or 3 manheads.

Size No. 1 measures 13" from tip to tip. Price $0.70 each.

Size No. 2 measures 14½" from tip to tip. Price $1.25 each.

MAN-HOLE BOLTS.

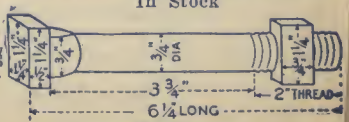
In Stock



Price $0.50 each

HAND-HOLE BOLTS.

In Stock

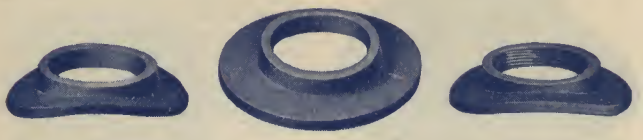


Price $0.40 each

GASKETS. We furnish Rubber, Lead and Asbestos gaskets for manheads and handholes.

WRITE FOR PRICES

FORGED STEEL BOILER FLANGES.



IN STOCK.

Forged from soft open-hearth steel. May be punched for rivets, wide face making ample space for rivet heads.

Edges beveled for calking.

Heavy, deep hub with perfect thread entire length.

Tested with Briggs Standard Thread Gauge.

PRICE LIST.

Size of Pipe Inches.	Diam. of Flange, Inches.	Thickn's of Flange Inches.	Depth of Flange, Inches.	Price, Bent or Flat, not Threaded.	Price, Bent or Flat, and Threaded.	Approximate Wt. per Flange, Pounds.
¾	6	5/16	1	$ 1.60	$ 1.70	3
1	6	5/16	1	1.60	1.80	3
1¼	6½	5/16	1	1.75	1.95	3½
1½	7	3/8	1¼	2.05	2.25	4½
2	8	3/8	1¼	2.35	2.50	6
2½	8½	3/8	1½	2.45	2.60	8
3	9	3/8	1½	2.65	2.80	9
3½	9½	7/16	1½	3.00	3.20	10
4	10	7/16	1½	3.35	3.50	10½
4½	10½	½	1½	4.00	4.20	13
5	11½	½	2	4.75	5.00	15
6	12½	½	2	5.70	6.00	19
7	14	5/8	2¼	8.60	9.00	28
8	15	5/8	2¼	11.40	12.00	30
9	16	¾	2½	17.00	20.00	36
10	17½	¾	2½	21.00	25.00	44
12	20	13/16	3	26.00	30.00	60

EXTRAS FOR ODD FLANGES.

Flanges 7 in. and smaller, bent to smaller than 18 in. but not under 14 in. .....50% extra

Bending Flanges 8 in. and larger to circles under 24 in. subject to special price.

Flanges threaded straight through.....15% "

Flanges larger O. D. than Standard—special price.

Other irregular Flanges—special prices.

WE CAN ALSO FURNISH

Extra Heavy Boiler Flanges for single or double riveting. Riveted Pipe Flanges, Forged Steel Companion Flanges, Hillside Flanges, and Offset Flanges.

WRITE FOR DISCOUNTS

FORGED STEEL TANK FLANGES.

IN STOCK

Our New Standard Tank Flange is made to meet the need of tank makers where they require a flange lighter than the Standard Boiler Flange.

They are specially suited for attaching to thin plate work, as they are readily drawn into place.

PRICE LIST AND DIMENSION TABLE

Nominal Size Inches	Outside Diameter inches	Thickness inches	Depth of Hub inches	Diameter of Hub inches	Price, Each, Flat		Price for Bending	Approx Wt. per Flange Lbs.
					Threaded	Plain		
¾	5	3/16	11/16	1⅞	$1.60	$1.40	$0.20	1¾
1	5	3/16	11/16	1⅞	1.60	1.40	.20	1¾
1¼	5½	¼	11/16	2 3/16	1.75	1.55	.20	2
1½	6	¼	¾	2 9/16	2.00	1.80	.25	2¾
2	6½	¼	¾	3 1/16	2.40	2.10	.25	3¾
2½	7½	5/16	1	3 9/16	2.60	2.30	.30	4½
3	8	5/16	1⅛	4 5/16	2.80	2.65	.30	5½
3½	8½	5/16	1⅛	4 13/16	3.60	3.05	.35	8
4	9½	⅜	1 3/16	5⅜	4.00	3.35	.35	8½
4½	10	⅜	1¼	5⅞	4.75	4.00	.40	9¾
5	11	⅜	1 5/16	6 9/16	6.50	4.75	.40	12½
6	12	⅜	1⅜	7 11/16	7.50	6.00	.45	13¾
8	14	7/16	1⅝	9⅝	14.00	11.40	.70	25

Flanges can be galvanized in a few days.

FORGED STEEL MARINE FLANGES

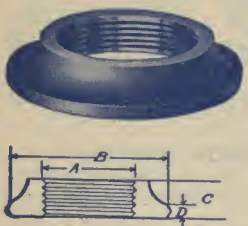
Size Inches	Diameter Inches	Thickness Inches	Depth of Hub Inches	Price, Bent or Flat, Plain	Price, Bent or Flat Threaded
1½	7	½	1⅜	$2.28	$2.40
2	8	½	1½	2.35	2.50
2½	8½	½	1⅝	2.45	2.60
3	9	9/16	1⅝	2.65	2.80
3½	9½	9/16	1¾	3.00	3.20
4	11	11/16	2¼	3.35	3.50
4½	11½	¾	2⅜	4.00	4.20
5	12½	¾	2¾	4.75	5.00
6	13½	¾	3	5.70	6.00

WRITE FOR DISCOUNTS

SCULLY WELDING FLANGES

DROP FORGED STEEL

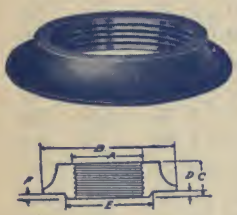
EXTRA HEAVY FLAT FLANGES



In Stock

No.	A	B	C	D
3306	3/4	2 1/4	3/4	1/4
3308	1	2 1/2	3/4	1/4
3310	1 1/4	2 15/16	3/4	1/4
3312	1 1/2	3 1/4	3/4	1/4
3316	2	3 3/4	3/4	1/4
3320	2 1/2	4 5/16	1	1/4
3324	3	5 1/2	1	1/4
3328	3 1/2	5 15/16	1	1/4
3332	4	6 1/2	1 1/8	1/4

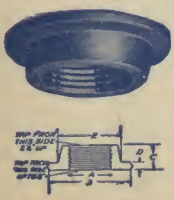
STANDARD HEAVY FLAT FLANGES



In Stock

No.	A	B	C	D	E	F
3001	1/8	1 1/2	13/32	3/64	1 5/32	3/32
3002	1/4	1 1/2	13/32	3/64	1 5/32	3/32
3003	3/8	1 1/2	13/32	3/64	1 5/32	3/32
3004	1/2	1 7/8	9/16	1/64	1 1/4	3/32
3006	3/4	2	5/8	1/16	1 9/32	3/16
3008	1	2 1/4	3/4	1/16	1 3/4	3/16
3010	1 1/4	2 11/16	3/4	1/16	1 7/8	3/16
3012	1 1/2	3 3/64	3/4	1/16	2 1/32	3/16
3016	2	3 1/2	3/4	1/16	2 23/32	3/16
3020	2 1/2	4 1/16	1	1/16	3 3/16	3/16
3024	3	4 5/8	1	1/16	3 11/32	3/16
3028	3 1/2	5 1/8	1	1/16	4 3/16	3/16
3032	4	5 13/16	1 1/8	1/16	4 3/4	3/16

HEAVY TANK FLAT FLANGES



In Stock

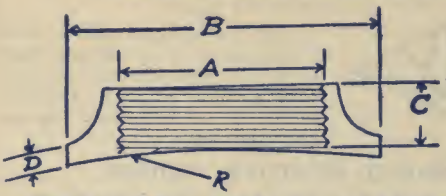
No.	A	B	C	D	E
3202	1/4	1 1/4	5/16	1/8	3/4
3203	3/8	1 1/4	5/16	1/8	15/16
3204	1/2	1 1/2	7/16	1/8	1 1/8
3206	3/4	1 3/4	5/8	1/8	1 3/8
3208	1	2 1/8	5/8	5/32	1 11/16
3210	1 1/4	2 1/2	3/4	5/32	2
3212	1 1/2	3	3/4	3/16	2 3/8
3216	2	3 1/4	3/4	3/16	2 7/8
3220	2 1/2	4 1/4	1	1/4	3 5/8
3224	3	4 3/4	1	1/4	4 1/8
3228	3 1/2	5 1/4	1	1/4	4 5/8
3232	4	5 3/4	1 1/8	5/16	5 1/8

Write for Special Circular and Price List

SCULLY WELDING FLANGES

Drop Forged Steel

EXTRA HEAVY CURVED FLANGES

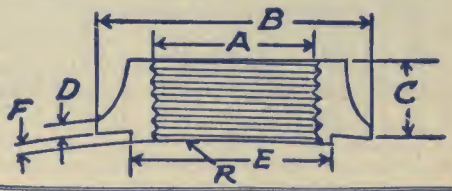


FROM STOCK

No.	A	B	C	D	R
3520	2½	4 1/16	1	¼	30
3524	3	5	1	¼	30
3528	3½	5 5/8	1	¼	30
3532	4	6	1⅛	¼	30

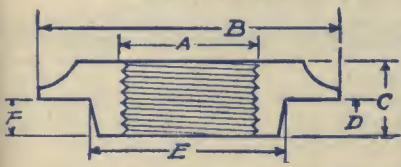
STANDARD HEAVY CURVED FLANGES

IN STOCK



No.	A	B	C	D	E	F	R
3112	1½	3 1/16	¾	1/16	2 11/32	3/16	12
3116	2	3 11/16	¾	1/16	2 11/32	3/16	15
3120	2½	4 5/16	1	1/16	3 1/16	1/16	22
3124	3	4 7/8	1	1/16	3 1/16	1/16	22
3128	3½	5 1/16	1	1/16	4 1/16	1/16	26
3132	4	5 11/16	1⅛	1/16	4 3/4	1/16	22

LIGHT TYPE FLAT FLANGES



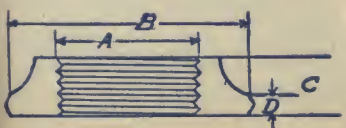
FROM MILL

No.	A	B	C	D	E	F
3404	½	1 5/8	½	1/16	1 1/16	¼
3406	¾	2 1/16	11/32	1/16	1 13/16	11/32
8175	1	2 1/4	5/16	1/16	1 13/16	¼
3412	1½	2 13/16	½	1/16	2 5/16	¼
3416	2	3 1/4	½	1/16	2 11/16	1/16

LARGE SIZE WELDING FLANGES

FLAT IN STOCK

Curved any diameter made to order in a few days.



Size A	B	C	D
4½	7	1¼	3/16
5	7½	1½	3/16
6	8½	1½	3/16
7	9½	1¾	1/4
8	10½	1¾	1/4
10	13	2	1/4
12	15	2	1/4

We can furnish Welding Flanges to meet Underwriters' specifications ALSO Double Extra Heavy Flanges.

Flanges for Electric Welding and special Flanges.

WRITE FOR SPECIAL CIRCULAR AND PRICE LIST

SCULLY STAY-BOLT IRON—SOLID

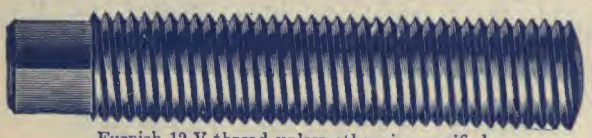
Made to Meet A. S. M. E. and A. S. T. M. Specifications

This is a high-grade, clean, extra puddled, refined iron, exceedingly tough and solid, combining a sufficiently high tensile strength with great ductility. Suitable for stay bolts, chain, forgings and general work.

SIZES CARRIED IN STOCK. ROUND

Diameter in inches	Length in feet	Est. Wt. per foot	Extra for Size	Diameter in inches	Length in feet	Est. Wt. per foot	Extra for Size
3/4	18	1.502	.05	1 3/16	18	3.766	Base
7/8	18	2.044	.05	1 1/4	18	4.173	"
15/16	18	2.347	.05	1 3/8	18	5.049	"
1	18	2.670	Base	1 1/2	18	6.008	"
1 1/16	18	3.014	"	1 3/4	18	8.178	"
1 1/8	18	3.379	"				

SCULLY BOILER STAY-BOLTS—SOLID



Furnish 12 V thread unless otherwise specified.

STOCK SIZES	Diameter of Stay Bolts in Inches.								
	3/4	7/8	15/16	1	1 1/16	1 1/8	1 1/4	1 3/8	1 1/2
List per foot.	60c	80c	$1.00	$1.00	$1.30	$1.30	$1.50	$1.80	$2.00

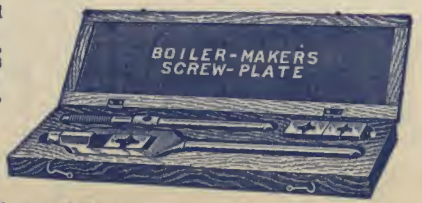
We carry in stock 18 and 36 inch lengths. Other lengths made up quickly. Heads of stay-bolts are 1 inch long and are figured in length of bolt.

BOILERMAKERS' SCREW PLATE.

IN STOCK.

For threading and repointing stay bolts. Stock 25 inches long, with adjustable dies for 3/4 inch, 7/8 inch and 1 inch diameter bolts, 12 threads per inch.

List price, packed in neat hardwood boxes, as shown in cut.....$10.00



We carry in stock extra dies for 3/4" 7/8", 1", 1 1/8" and 1 1/4" Stay Bolts.

WRITE FOR PRICES

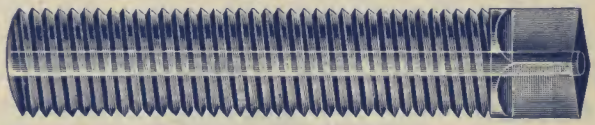
SCULLY HOLLOW STAY-BOLT IRON

Made of pure high grade iron. Hole is rolled in when bar is made, not drilled in.

SIZES CARRIED IN STOCK

Diameter in inches	Length in feet	Est. Wt. per foot	Diameter in inches	Length in feet	Est. Wt. per foot
7/8	6-14	2.044	1 1/16	6-14	3.014
15/16	"	2.347	1 1/8	"	3.379
1	"	2.67	1 1/4	"	4.173

SCULLY HOLLOW STAY-BOLTS

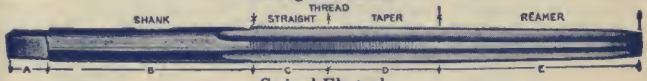


Any length made quickly to order. When ordering specify length of thread, number of threads per inch and whether V or U. S. S. thread.

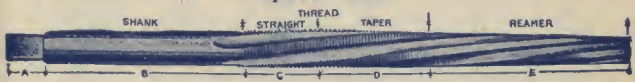
12 V thread furnished unless otherwise specified.

STAY-BOLT TAPS

Straight Fluted



Spiral Fluted



Sizes Carried in Stock—12 V Threaded.

Dia. In.	L'ngth In.	List Price	Dia. In.	L'ngth In.	List Price	Dia. In.	L'ngth In.	List Price	Dia. In.	L'ngth In.	List Price
3/4	16	$ 6.40	7/8	24	$10.80	1	16	$ 8.80	1 1/8	24	$14.40
	18	7.20		36	16.20		18	9.90	1 1/8	18	11.70
	21	8.40	1 1/16	16	8.00		21	11.55		21	13.65
	24	9.60		18	9.00		24	13.20		24	15.60
7/8	16	7.20		21	10.50		36	19.80	1 1/4	24	18.00
	18	8.10		24	12.00	1 1/8	18	10.80		36	27.00
	21	9.45									

N. B.—All stock taps are divided into equal thirds; that is 1/3 shank, 1/3 thread and 1/3 reamer.

Any size shipped promptly from factory.

PRICE LIST.

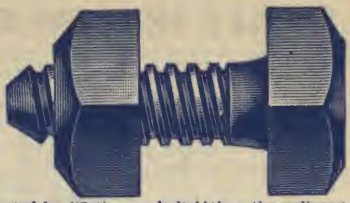
Stay Bolt Taps, effective August 13, 1925

3/4" dia.	40c	per inch	1" dia.	55c	per inch	1 1/16" dia.	75c	per inch
1 1/16" "	40c	" "	1 1/16" "	60c	" "	1 1/16" "	80c	" "
7/8" "	45c	" "	1 1/8" "	65c	" "	1 3/16" "	85c	" "
1 1/16" "	50c	" "	1 3/16" "	70c	" "	1 1/4" "	90c	" "
						1 1/2" "	95c	" "

When ordering Taps, state diameter and number of threads over inch, and also lengths of parts at A, B, C, D and E.

WRITE FOR PRICES

BOILER or Fitting-up BOLTS.



With Cone Points and fitted with Patent Recessed Square Nuts.

The length of the bolt is the distance under the head.

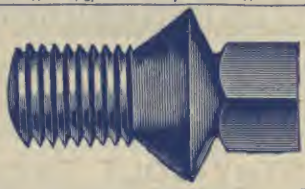
These bolts are made of soft steel with quite coarse threads, so that nuts can be run on or off quickly by hand, and are fitted with Patent Recessed Nuts, and will be found of great convenience to boilermakers being much better adapted for "fitting up bolts" than the ordinary machine bolt. We also furnish dies and taps for recutting broken threads.

SIZES CARRIED IN STOCK IN CHICAGO

Size	List Price Per 100	Est. Wt. per 100	Size	List Price Per 100	Est. Wt. per 100	Size	List Price Per 100	Est. Wt. per 100
½x1	$6.70	18.5	⅝x2	$11.45	41.0	¾x3	$16.25	73.2
x1¼	6.90	19.5	x2½	11.95	43.7	⅞x2	22.30	90.0
x1½	7.15	20.5	x3	12.45	49.2	x2½	23.20	102.5
x1¾	7.60	21.5	¾x1½	14.30	59.9	x3	24.10	115.0
x2	7.60	22.6	x2	14.95	64.3	x3½	25.00	122.5
⅝x1½	10.95	35.5	x2½	15.00	68.8			

BOILER PATCH BOLTS.

SIZES CARRIED IN STOCK IN CHICAGO



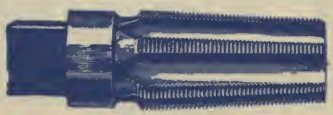
THREADED — 12 threads to an inch.

Diameter in Inches	Length in Inches	List Price per 100 Bolts	Diameter in Inches	Length in Inches	List Price per 100 Bolts
½	¾	$3.75	¾	1½	$ 8.25
	1	4.25		1¾	10.25
	1¼	4.75		2	10.25
	1½	5.25	⅞ & ⅞	1	9.50
⅝	¾	4.25		1¼	10.25
	1	4.80		1½	11.25
	1¼	5.50		2	13.25
	1½	6.50	⅞ & 1	1	13.50
¾	⅞	6.00		1¼	14.75
	1	6.50		1½	16.25
	1¼	7.25	1⅛	1½	22.50

Any diameter or length, also Blank Patch Bolts, shipped promptly from mill.

The length of a Patch Bolt is the distance from top of countersink to end of bolt. Heads countersunk at an angle of 45 degrees.

PATCH BOLT TAPS.



Sizes carried in stock all 12 thread.

Diameter in Inches	Price	Diameter in Inches	Price	Diameter in Inches	Price	Diameter in Inches	Price
½	$1.00	¾	$1.70	⅞	$2.40	1⅛	$3.00
⅝	1.10	⅞	1.95	1	2.80	1⅛	3.15
⅝	1.25	⅞	2.25	1⅛	2.90	1¼	3.35
⅞	1.45						

These Taps are made especially for Boilermakers and are slightly tapered in order to make steam-tight joint.

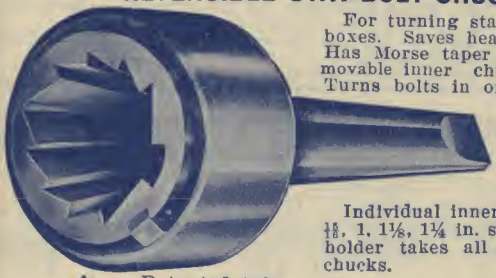
WRITE FOR PRICES

GENUINE SOAPSTONE CRAYONS.
IN STOCK

PRICE LIST.

Size and Description of Crayons. Sizes carried in stock, 1 gross in a box.	Write for Prices
¼ inch Square Crayons 5 inches long.....	
¼ inch Round Crayons 5 inches long.....	
Metal Workers' Crayons, 5x½x$\frac{5}{16}$.....	
Rolling Mill Crayons 5x1¼x$\frac{5}{16}$.....	

REVERSIBLE STAY-BOLT CHUCK.



For turning stay bolts in fireboxes. Saves heading the bolts. Has Morse taper shank and removable inner chuck, keyed in. Turns bolts in or out. Positive grip all the time—does not slip. This tool is being used in large railroad shops.

Individual inner chucks for ⅞, 1$\frac{1}{16}$, 1, 1⅛, 1¼ in. staybolts. Same holder takes all sizes of inner chucks.

Patented 1908.

PACKER RATCHET DRILLS

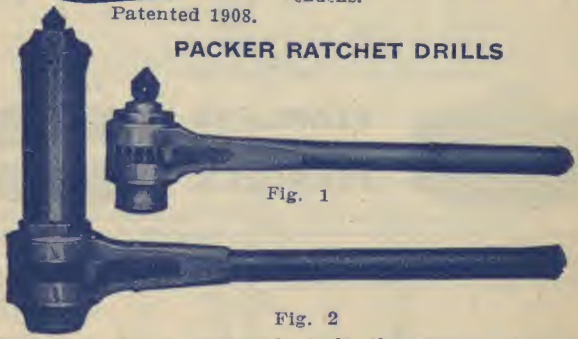


Fig. 1

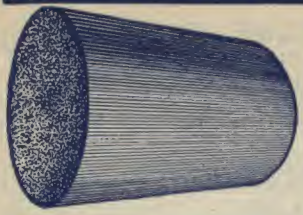
Fig. 2

These are strong, well-made tools, the wearing parts being hardened steel forgings. Figure 1 represents Boiler Makers' Ratchet; Figure 2, General Use, which is furnished both with square socket and with taper socket to fit Morse Taper-Shank Drills.

LIST PRICES

General Use (Fig. 2) with Square Socket				General Use (Fig. 2) with Taper Socket				Boiler Makers' (Fig. 1)		
Size	Handle	Weight	Price	Handle	Morse Socket	Weight	Price	Handle	Weight	Price
No. 1	10 in.	5½ lbs.	$10.50	10 in.	No. 2	5½ lbs.	$13.00	10 in.	4 lbs.	$ 9.00
No. 2	13 in.	7 lbs.	13.50	13 in.	No. 3	7 lbs.	16.00	13 in.	5 lbs.	10.50
No. 3	16 in.	11½ lbs.	16.00	16 in.	No. 4	11½ lbs.	20.00	16 in.	9 lbs.	15.00
No. 4	18 in.	13 lbs.	19.00	18 in.	No. 4	13 lbs.	25.00	18 in.	11 lbs.	18.00
No. 5	24 in.	14 lbs.	23.00	24 in.	No. 4	14 lbs.	30.00	24 in.	12 lbs.	22.00

WRITE FOR PRICES



GREY IRON FLUE PLUGS

IN STOCK

To be used for plugging flues in an emergency.

For Flues	List Price, Each
2 inches	$0.40
2½ inches	.50
3 inches	.60
3½ inches	.80
4 inches	1.00

PERFECTION FLUE CLEANER.

For Cleaning Smoke Flues.

The cleaner is light, strong and simple, and the knives are so made that they are always sharp. Heads are steel drop forgings.

Will clean welded flues as nicely as old ones, and remove the scales from tube without cutting the metal.

Cleans hot or cold flues without changing the temper.

It has no screws nor rivets in its construction, and yet is the strongest cleaner made.

Can be operated by a flexible handle, thus permitting its use in small fire rooms or where space is limited.

Will send cleaners on trial, to be returned at our expense if not found satisfactory.

Size of Flue	LIST PRICE	Size of Flue	LIST PRICE	Size of Flue	LIST PRICE
1¼ in.	$2.00	2½ in.	$2.50	4 in.	$4.00
1½	2.00	2¾	2.75	4½	5.00
1¾	2.00	3	3.00	5	6.00
2	2.00	3¼	3.25		
2¼	2.25	3½	3.50		

We carry all sizes in stock for immediate shipment.

Plain

SEAMLESS COPPER FERRULES.

Flanged

We carry from 1,000 to 5,000 plain Ferrules of each size in stock.

Inside Diameter in Inches.	Width in Inches.	1-16 in. THICK List Price Per 100.	1-32 in. THICK List Price Per 100.
1½	⅝	$17.00	$ 9.30
1¾	⅝	20.25	10.80
1⅞	⅝	21.50	11.60
2	⅝	23.00	12.30
2¼	⅝	25.25	13.50
2½	⅝	28.25	15.00
3	¾	41.00	21.90
3½	¾	45.75	24.60
4	¾	63.00	33.60
Outside Diam.			
2	⅝	21.50	12.30

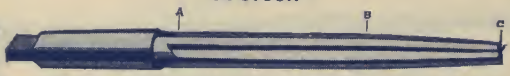
Flanged Ferrules and special sizes of Ferrules of either kind furnished from factory.

WRITE FOR PRICES

BRIDGE OR AIR DRILL REAMERS

IN STOCK

Straight Flutes



Carbon Steel.

These Reamers are made with five flutes and from the best material.

We carry these sizes in stock.	Diameter at A	Diameter at B	Diameter at C	List Price Each	No. of Taper Shank	Length Over All	Length of Flute
	½ in.	½ in.	¼ in.	$2.75	No. 2	9 in.	5¼ in.
	9/16	9/16	5/16	2.90	2	9	5¼
	5/8	5/8	11/32	3.05	2	10	6¼
	11/16	11/16	11/32	3.20	3	11	6⅝
	3/4	3/4	11/32	3.35	3	12	7⅝
	13/16	13/16	½	3.50	3	12	7⅝
	7/8	7/8	11/32	3.75	3	12	7⅝
	15/16	15/16	11/32	4.00	3	12	7⅝
	1	1	11/32	4.25	3	12	7⅝
	1 1/16	1 1/16	11/32	4.50	3	12	7⅝
	1 1/8	1 1/8	11/32	4.75	3	12	7⅝
	1 3/16	1 3/16	11/32	5.00	3	12	7⅝

High-Speed Steel Taper Bridge Reamers

With Morse Taper Shank

SPIRAL FLUTES

Special grinding with spiral flutes prevents choking and gives free clearance of chips.

Full Diameter Inches A-B	Diameter at point Inches C	Length Over all Inches	Length of flute Inches	No. of Morse Taper Shank
½	5/16	9	5⅛	2
9/16	5/16	9	5⅛	2
5/8	3/8	10	6⅛	2
11/16	3/8	11¾	7⅛	3
¾	7/16	12	7⅜	3
13/16	½	12	7⅜	3
⅞	9/16	12	7⅜	3
15/16	5/8	12	7⅜	3
1	11/16	12	7⅜	3
1 1/16	¾	12	7⅜	3
1 1/8	13/16	12	7⅜	3
1 3/16	⅞	12	7⅜	3
1 ¼	15/16	13	7⅜	4
1 5/16	1	13	7⅜	4
1 3/8	1 1/16	13	7⅜	4
1 7/16	1 1/8	13	7⅜	4
1½	1 3/16	13	7⅜	4

SHORT FLUTE REAMERS FOR STEEL CAR WORK

High Speed Steel Spiral Flutes

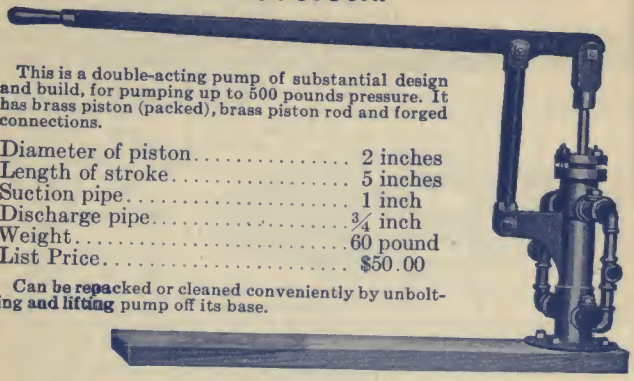
11/16	3/8	9 13/16	5	3
13/16	½	9 15/16	5	3
15/16	5/8	10 1/16	5	3

WRITE FOR PRICES

Machinery Hand and Power
Tables
ial Whse Cuttin Ext

SCULLY BOILER TEST PUMP.

IN STOCK.



This is a double-acting pump of substantial design and build, for pumping up to 500 pounds pressure. It has brass piston (packed), brass piston rod and forged connections.

Diameter of piston	2 inches
Length of stroke	5 inches
Suction pipe	1 inch
Discharge pipe	¾ inch
Weight	60 pound
List Price	$50.00

Can be repacked or cleaned conveniently by unbolting and lifting pump off its base.

SCULLY FLUE-HOLE CUTTER.

This is the strongest flue-hole cutter on the market. Made of steel throughout, with tool steel knives and reamer. The knives are 4½ inches long and of the same shape their entire length, so require little grinding and last a long time. The center reamer and shank are removable. The knives are held firmly in place with set screws made of hardened tool steel which are set in the body, and which do not project.

Shank is No. 4 Morse Taper but can be furnished blank if desired.

LIST PRICES.

Number.	Will Cut Holes.	List Price, Each
4	4 in. to $4\frac{1}{16}$ in.	$20.00
$3\frac{1}{2}$	$3\frac{1}{2}$ in. to $3\frac{9}{16}$ in.	18.00
3	3 in. to $3\frac{1}{16}$ in.	16.00
$2\frac{1}{2}$	$2\frac{1}{2}$ in. to $2\frac{9}{16}$ in.	15.00
2	2 in. to $2\frac{1}{32}$ in.	14.00
$1\frac{7}{8}$	$1\frac{7}{8}$ in. to $1\frac{29}{32}$ in.	12.00

Extra Cutter Knives, Extra Center Reamers. } Write for Prices.

MALLEABLE CLAMPS.

IN STOCK.

For boilermakers.

These are strong, well-made, practical clamps. The screw is made of high-grade tool steel and has Acme thread.

Size No. 3.
Height of throat, 3 inches.
Width of throat, 3 inches.

List price $5.00

WRITE FOR PRICES

WIEDEKE ROLLER EXPANDER

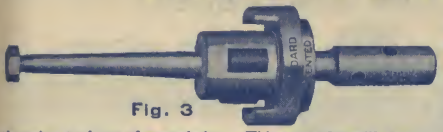


Fig. 3

The rolls and mandrel of this expander are made of good tool steel and tempered. The frame is one piece, always furnishing a good bearing to the guard. It has no collar or pin to get loose or lost throwing tool out of commission. This expander will give good, ordinary service.

Size of Expander For Outside Dia. tubes (in.)	1″	1¼″	1½″	1¾″	1⅞″	2″	2¼″	2½″	2¾″
Will enter and expand tubes I. D from (in.)	7/32 to 1″	1 1/16 to 1¼″	1 5/32 to 1½″	1½ to 1¾″	1 23/32 to 1⅞″	1 13/32 to 2″	1 15/32 to 2¼″	2 5/32 to 2½″	2 13/32 to 2¾″
Price Complete	$10.00	10.00	10.00	10.00	10.00	10.00	12.00	14.00	16.00
Approx. Wt. boxed (lbs.)	2½	2¾	3	4¼	4½	5	6	7½	8½
Extra Mandrels Each	$2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.50	3.25
Extra Rolls Each	$ .20	.20	.20	.20	.20	.20	.20	.20	.35

Size of Expander For Outside Dia. tubes	3″	3¼″	3½″	3¾″	4″	4¼″	4½″	5″	6″
Will enter and expand tubes I. D. from (in.)	2 5/8 to 3″	2 7/8 to 3¼″	3 1/8 to 3½″	3 3/8 to 3¾″	3 5/16 to 4″	3 13/16 to 4¼″	4 1/16 to 4½″	4½ to 5″	5 3/8 to 6″
Price Complete	$18.00	20.00	23.00	25.00	30.00	40.00	50.00	60.00	70.00
Approx. Wt. boxed (lbs.)	10½	14	17	17½	20½	24½	25	34½	49½
Extra Mandrels Each	$ 3.75	4.25	4.75	5.50	5.75	6.50	8.50	10.00	11.00
Extra Rolls Each	$ .35	.50	.50	.60	.60	.80	.80	1.00	1.75

IDEAL ALL STEEL SELF FEED EXPANDER

Fig. 40.

The rolls, detachable mandrel, frame and guard of this expander are made of the very best tool steel and tempered. Rolls cannot fall to inside or outside of frame when mandrel is removed. Rolls are double length and reversible. Self feeding. Furnished with frictionless phosphor bronze bearing, impossible to get out of order, reducing friction to a minimum. All expanders have a right hand feed and furnished with standard, detachable combination square shank mandrels.

Sizes 1″ to 1½″, inclusive, ½″ sq.
Sizes 1⅝″ to 2¾″, inclusive, ¾″ sq.
Sizes 3″ to 6″, inclusive, 1″ square

Size of Expander For Outside Dia. tubes (in.)	1″	1 1/16″	1⅛″	1 3/16″	1¼″	1 5/16″	1⅜″	1 7/16″	1½″	1⅝″
Enters I. D., expands to (in.)	7/32 to 1″	⅞ to 1 1/16″	13/32 to 1⅛″	1 to 1 3/16″	1 1/16 to 1¼″	1 13/32 to 1 5/16″	1 5/8 to 1⅜″	1 13/32 to 1 7/16″	1 5/8 to 1½″	1⅝ to 1⅝″
Price Complete	$16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Approx Wt. boxed (lbs.)	3½	3½	4	4	4	4	4½	4½	4½	6½
Extra Mandrels Each	$ 3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Extra Rolls Each	$ .30	.30	.30	.30	.30	.30	.30	.30	.30	.30

Size of Expander For Outside Dia. tubes (in.)	1¾″	1⅞″	2″	2⅛″	2¼″	2⅜″	2½″	2⅝″	2¾″	3″
Enters I. D., expands to (in.)	1½ to 1 13/16″	1 13/16 to 1⅞″	1 15/16 to 2″	1 1/16 to 2⅛″	2 1/16 to 2¼″	2 5/16 to 2⅜″	2 5/8 to 2½″	2 13/16 to 2⅝″	2 15/16 to 2¾″	2⅝ to 3″
Price Complete	$16.00	16.00	16.00	18.00	18.00	19.50	19.50	22.00	22.00	22.00
Approx. Wt. boxed (lbs.)	7	7½	8	8½	9	10½	11	13½	14½	17
Extra Mandrels, Each	$ 3.50	3.50	3.50	3.50	3.50	4.50	4.50	4.50	4.50	5.50
Extra Rolls Each	$ .30	.30	.30	.30	.30	.30	.30	.60	.60	.60

Size of Expander For Outside Dia. tubes (in.)	3¼″	3½″	3¾″	4″	4¼″	4½″	5″	5¼″	5½″	6″
Enters I. D., expands to (in.)	2⅞ to 3¼″	3 1/16 to 3½″	3 5/16 to 3¾″	3 1/16 to 4″	4 1/16 to 4¼″	4 1/16 to 4½″	4 11/16 to 5″	4 11/16 to 5¼″	5 3/16 to 5½″	5⅜ to 6″
Price Complete	$24.50	24.50	27.00	27.00	40.00	50.00	55.00	60.00	60.00	65.00
Approx. Wt. boxed (lbs.)	18½	21	23	28	31	32	39½	40½	51	55
Extra Mandrels Each	$ 5.50	6.50	6.50	7.50	10.00	10.00	15.00	18.00	18.00	20.00
Extra Rolls Each	$ .70	.70	.80	.80	1.10	1.10	2.00	2.50	2.50	3.00

ROLLER EXPANDERS.

DUDGEON PATTERN.

Collar and Guard removable.

Size	Outside Diameter of Tube in inches														
	1¼	1½	1¾	1⅞	2	2¼	2½	2¾	3	3¼	3½	4	4½	5	6
Price List	$10.00	10.00	10.00	10.00	10.00	12.00	14.00	16.00	18.00	20.00	23.00	30.00	40.00	50.00	60.00
Price Mandrels	$1.50	2.00	2.00	2.50	2.50	3.00	3.50	3.50	4.00	4.50	5.00	6.50	8.00	10.00	15.00
Price set, 3 Rolls	$0.60	.70	.80	.90	1.00	1.15	1.30	1.45	1.60	1.75	2.00	2.50	3.50	4.00	5.00

STANDARD SECTIONAL EXPANDER

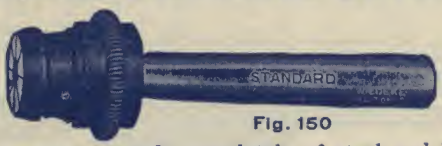


Fig. 150

This expander is made completely of steel and hardened. It is for hand use only. Used mostly on fire boxes of thresher engines and for repair work and gives good ordinary service. When ordering always state thickness of tube sheet; ⅜ in. plate for ⅜ in. thickness tube sheet and ½ in. plate for ½ in. thickness tube sheet carried in stock. All other plates are special.

SIZE OF EXPANDER For Outside Dia. tubes (in.)	1″	1¼″	1½″	1¾″	2″	2¼″
Will enter and expand tubes I. D. (in.)	31/32″	1 1/16″	1 9/32″	1 13/32″	1 23/32″	1 15/16″
PRICE COMPLETE	$12.00	$12.00	$12.00	$12.00	$12.00	$13.00
Approx. Wgt. boxed (lbs.)	3	3½	4	4½	5	5½
Extra Pins.....Each	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50
Extra Coil Steel Springs.....Each	.40	.40	.40	.40	.40	.40

SIZE OF EXPANDER For Outside Dia. tubes (in.)	2½″	2¾″	3″	3¼″	3½″	4″
Will enter and expand tubes I. D. (in.)	2 3/32″	2 13/32″	2 5/8″	2 7/8″	3 1/8″	3 5/16″
PRICE COMPLETE	$15.00	$18.00	$22.00	$26.00	$30.00	$33.00
Approx. Wgt. boxed (lbs.)	7	8½	9½	13½	14	16
Extra Pins.....Each	$3.00	$5.00	$5.00	$7.00	$7.00	$7.00
Extra Coil steel Springs.....Each	.40	.75	.75	1.00	1.00	1.00

WIEDEKE IDEAL SECTIONAL EXPANDERS

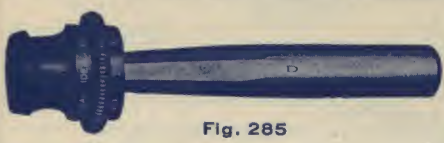


Fig. 285

This form B, sectional expander is made entirely of the very best tool steel and tempered; is for hand and power use. Guaranteed to be strictly the highest grade. Expanders assume a true circle after expanded in full in the tube. All sections are interchangeable. Made with double taper to relieve rear of sections and releasing pin bringing actual working surface together only. We carry in stock ½" and ⅝" plate. Plate is the dimension from the bottom to the bottom of the recess, note

Mention what plate is desired when ordering.

Size of Expander. For Outside Dia. tubes.....(in.)	1½"	1⅝"	1¾"	1⅞"	2"	2⅛"
Will enter and expand tubes I. D...(in.)	1 3/32"	1 9/32"	1 11/32"	1 13/32"	1 17/32"	1 21/32"
Price Complete.....	$12.00	$12.00	$12.00	$12.00	$12.00	$13.00
Approx. Wgt. boxed .....(lbs.)	4	4	4½	4½	5	5
Extra Octagon Pins (285-OP).....Each	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00
Extra Round Pins (285-RP).....Each	2.50	2.50	2.50	2.50	2.50	2.50
Extra Coil Steel Springs (285-C)...Each	.40	.40	.40	.40	.40	.40
Extra Rubber Bands (285-R).....Each	.60	.60	.60	.60	.60	.60

Size of Expander. For Outside Dia. tubes.....(in.)	2¼"	2⅜"	2½"	3"	3½"	4"
Will enter and expand tubes I. D...(in.)	1 15/16"	2 1/16"	2 3/32"	2 5/8"	3 1/8"	3 9/16"
Price Complete.....	$13.00	$15.00	$15.00	$22.00	$30.00	$33.00
Approx. Wgt. boxed .....(lbs.)	5½	7	7	9½	14	16½
Extra Octagon Pins (285-OP).....Each	$3.00	$4.00	$4.00	$6.00	$8.00	$8.00
Extra Round Pins (285-RP).....Each	2.50	3.00	3.00	5.00	7.00	7.00
Extra Coil Steel Springs (285-C)...Each	.40	.40	.40	.75	1.00	1.00
Extra Rubber Bands (285-R).....Each	.60	.60	.60	1.25	1.50	1.50

FIG. 226
WIEDEKE IDEAL SECTIONAL EXPANDER FOR COPPER FERRULES
This expander enlarges ferrules more on the steam side and sets them back ⅛" from front side. For hand use only.

FIG. 230
Wiedeke Ideal Sectional (Form C) for hot work or preliminary setting. For hand or power.

FIG. 295
Wiedeke Ideal Sectional (Form D) for repair, reworking or hot work. For hand or power.

WRITE FOR DISCOUNTS

TUBE EXPANDERS
FOR WATER TUBE BOILERS

All expanders furnished in the self-feeding type, unless order states. wanted for hand use only. Guaranteed to be strictly the highest grade. Will do for any thickness tube sheet. Figs. 91 and 120 furnished with a frictionless phosphor-bronze bearing, impossible to get out of order and reducing friction to a minimum.

All expanders have a right hand feed and furnished with standard detachable combination square shank mandrels. } Sizes 2" to 2¾", inclusive, ¾" square. Sizes 3" to 4", inclusive, 1" square.

Fig. 120

SIZE of EXPANDER For Outside Dia. tubes (in.)	3¼"
Will enter and expand tubes I. D. from (in.)	2⅞ to 3¼"
Price Complete	$32.00
Approx. wt. boxed (lbs.)	23
Extra Mandrels Each	$12.00
Extra Rolls Each	$ 1.00

The rolls, detachable mandrel, frame and guard are made of the very best tool steel and tempered. Rolls cannot fall to inside or outside of frame when mandrel is removed. Rolls are double length and reversible. Made especially for the Sterling Water Tube Boiler and similar types.

FIG. 130. Made in 2 sizes

SIZE of EXPANDER For Outside Dia. tubes (in.)	3½"	4"
Will enter and expand tubes I. D. from (in.)	3⅛ to 3½"	3⅜ to 4"
Price Complete	$32.00	$35.00
Approx. Wt. boxed (lbs.)	25	32
Extra Mandrels Each	15.00	16.00
Extra Rolls Each	1.20	1.50

The rolls, detachable mandrel and frame are made of the very best tool steel and tempered. Rolls cannot fall to inside or outside of frame when mandrel is removed. Made specially for the Heine Safety Water Tube Boiler and similar types.

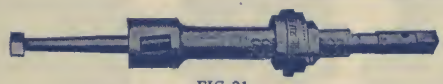


FIG. 91

The rolls, mandrel, frame and adjustable collar are made of the very best tool steel and tempered. Rolls cannot fall outside of the frame. Made specially for the Heine Safety Water Tube Boiler and similar types, adjustable for all size water legs, maximum range shown in list price.

FIG. 91. Made in 9 sizes

SIZE of EXPANDER For Outside Dia. tubes (in.)	2"	2¼"	2⅜"	2½"	2¾"	3"	3¼"	3½"	4"
Will enter and expand tubes I. D. from (in.)	1 23/32 to 2"	1⅝ to 2¼"	2⅛ to 2⅜"	2 1/32 to 2½"	2 13/32 to 2"	2⅝ to 3"	2⅞ to 3¼"	3⅛ to 3½"	3⅜ to 4"
Price Complete	$40.00	44.00	45.00	46.00	48.00	48.00	55.00	57.00	60.00
Approx. Wgt. boxed (lbs.)	15½	17	20½	21	23	24	34	38	47
Extra Mandrels Each	$ 8.00	8.00	11.00	11.00	14.00	14.00	14.00	15.00	16.00
Extra Rolls Each	$ .30	.30	.30	.30	.60	.60	.70	.70	.80
Maximum range through water space	8"	8"	8"	8"	8"	8"	12"	12"	12"

WRITE FOR PRICES.

B. & W. ALL STEEL ROLLER EXPANDER

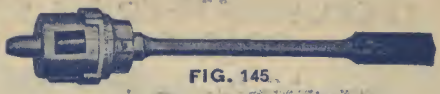


FIG. 145

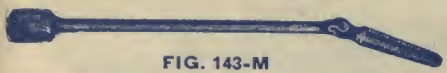


FIG. 143-M

SINGLE JOINTED MANDREL

DOUBLE JOINTED MANDREL

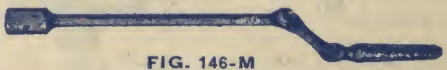


FIG. 146-M

COMBINATION POWER AND HAND MANDREL

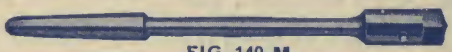


FIG. 140-M

Steam Drum Mandrel

Fig. 141-M

Straight Roll

Fig. 147-S

Tape-Roll

Fig. 147-T

Comb. Belling or Flaring Roll

Fig. 147-B

Made for Babcock & Wilcox Water Tube Boiler, Rust Water Tube Boiler and similar types. Expander is self-feeding, can be used with any power machines having square socket or by hand without any change. Each expander is furnished with three straight rolls (Fig. 147-S) three extra taper rolls (Fig. 147-T) and one patented combination belling and flaring rolls (Fig. 147-B).

SIZE OF EXPANDER For Outside Dia. tubes (in.)	2″	3″	3¼″	3½″	3¾″	4″	4½″	5″
Will enter and expand tubes I. D. from (in.).	1⅝″ to 1⅞″	2⅝″ to 3″	2⅞″ to 3¼″	3⅛″ to 3½″	3⅜″ to 3¾″	3⅝″ to 4″	4 1/16″ to 4½″	4 3/16″ to 5″
PRICE COMPLETE	$45.00	$50.00	$51.00	$52.00	$54.00	$55.00	$150.00	$160.00
Approximate Weight Boxed (lbs.)	9	20	21	22	23	24	55	60
Turning Rod Fig. 140-T.....Each	$ 1.00	$ 1.60	$ 1.70	$ 1.80	$ 1.90	$ 2.00	$ 3.00	$ 3.50
Power Mandrel (Comb.) Fig. 140-M.....Each	8.00	11.00	11.50	12.00	12.50	13.00	35.00	40.00
Single Jointed Mandrel Fig. 143-M.....Each	12.00	15.00	15.30	15.60	15.90	16.00	45.00	50.00
Double Jointed Mandrel Fig. 146-M.....Each	16.00	18.00	18.30	18.60	18.90	20.00	50.00	55.00
Steam Drum Mandrel Fig. 141-M.....Each	5.00	7.00	7.30	7.60	7.90	8.00	30.00	35.00
Straight Roll Fig. 147-S.....Each	.50	.80	.85	.90	.95	1.00	3.00	3.50
Taper Roll Fig. 147-T.....Each	1.00	1.30	1.35	1.40	1.45	1.50	5.00	5.50
Combination Belling or Flaring Roll Fig. 147-B.....Each	2.00	3.00	3.25	3.50	3.75	4.00	8.00	8.50

IDEAL SELF FEED ALL STEEL RAILROAD TUBE CUTTER.

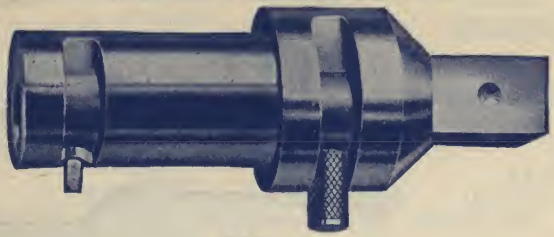


FIG. 360

The Ideal Railroad Tube Cutter is constructed entirely of the highest grade tool steel, carefully tempered and is for power and hand use. For power service it is the fastest tube cutter on the market. A quarter turn of knife pierces it through the tube, cutting it off in one revolution, making a smooth, clean and square cut, enabling tube to be taken out through the same hole.

PRICE LIST

Size of Tube Cutter for Outside Diam. Tube (in.)	$1\frac{3}{4}''$	$2''$	$2\frac{1}{4}''$
Will enter and cut tube I. D. (in.)	$1\frac{7}{16}''$	$1\frac{11}{16}''$	$1\frac{15}{16}''$
Price complete	$55.00	$55.00	$55.00
Knife, High Speed, per piece	$1.00	$1.00	$1.00
Knife, High Speed, per doz	$9.00	$9.00	$9.00
Size of Square Shank on Cutter	$1''$	$1''$	$1''$

REVERSIBLE RATCHET WRENCH

This wrench is very satisfactory for use with self-feeding expanders, also for staybolts, nuts, etc.

It can be changed to a right or left hand motion at will by rotating the knurled nut at end of the handle.

No. 3 from stock, other items from factory.

No.	1	3	$4\frac{1}{2}$
Length of Handle	$10''$	$15''$	$24''$
Square Sockets	$\frac{1}{2}''$	$\frac{3}{4}''$ and $1''$	$1''$ and $1\frac{1}{2}''$
List Price	$6.00	$10.50	$16.00

WRITE FOR PRICES

IDEAL SELF FEED TUBE CUTTER

(Patented)

FIG. 375
FOR HAND USE

Fig. 375-K

Is the only cutter upon the market that solved the problem of cutting off new steel tubes with a bevel ready for beading **without cracking them,** generally caused by turning them outward with a ball-faced hammer. By moving guard back, which requires about a minute, you can cut out old tubes inside of boiler head or with extension connected in a water tube boiler. (Note illustrations.) All wearing parts made of steel and tempered, making a first-class tool.

Fig. 375-L

Size of Tube Cutter For Outside Dia. tubes (in.)	2"	2¼"	2½"	2¾"	3"	3¼"	3½"	4"	4½"	5"	5½"	6"
Will enter and cut Tubes I. D. (in.)	1 13/32"	1 13/32"	2 7/32"	2 7/16"	2 11/16"	2 27/32"	3 1/8"	3 5/8"	4 1/16"	4 1/2"	4 11/16"	5 3/8"
Price Complete	40.00	44.00	46.00	50.00	60.00	66.00	68.00	70.00	110.00	126.00	128.00	130.00
Approx. Wgt. boxed (lbs.)	18	19	20	20	29	30	32	33	51	54	55	56
Extra Cutter Wheel (Part 19) per piece	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.60	2.60	2.60
Extra Cutter Wheels (Part 19) per dozen	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	12.00	15.00	15.00	15.00

IDEAL TUBE CUTTER EXTENSION

(Patented)

Fig. 377

Connect proper length extension and you can stand upright, outside of a smoke box, vertical, submerged, B. & W. Heine, Sterling Water Tube or any other boilers, enabling you to do more work.

Size Extension	D-1½	D-3	D-6	D-8	E-1½	E-3	E-6	E-8	F-1½	F-3
Price Complete	$10.00	$20.00	$40.00	$45.00	$12.00	$25.00	$45.00	$50.00	$45.00	$55.00
Length of Extension	19 in.	38 in.	6 ft.	8 ft.	19 in.	38 in.	6 ft.	8 ft.	19 in.	38 in.
Approx. Wgt. boxed (lbs.)	9	25	37	49	12	31	41	55	25	35
Fits following size tube cutters Fig. 375	←2", 2¼", 2½", 2¾"→				← 3", 3¼", 3½", 4" →				←4½",5",5½",6	

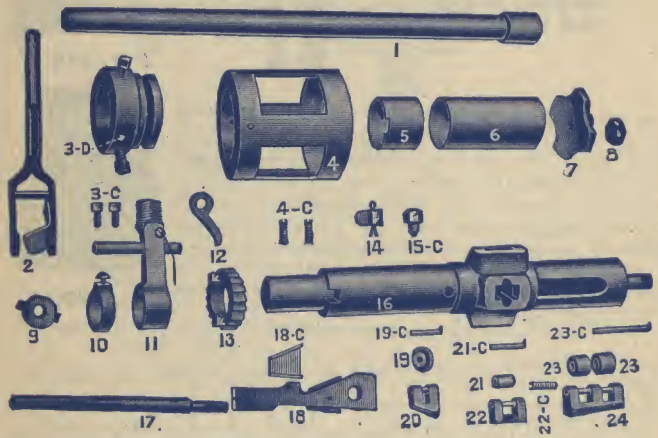
See pages 114 and 115 for parts.

WRITE FOR PRICES

Machinery Hand and Power
Tables
ial Whse Cutting Ext

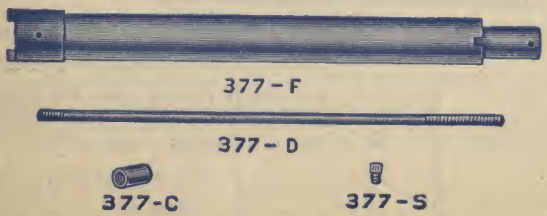
PARTS FOR IDEAL SELF-FEED TUBE CUTTER, FIG. 375

NOTICE:—When ordering Tube Cutter Parts ALWAYS STATE NUMBER of PIECE, HOW MANY and for WHAT SIZE Tube Cutter wanted.



PARTS FOR EXTENSION FRAME, FIG. 377

NOTICE:—When ordering Extension Frame Parts ALWAYS STATE NUMBER of PIECE, HOW MANY and for WHAT SIZE Extension wanted.



WRITE FOR PRICES

PARTS FOR IDEAL SELF-FEED TUBE CUTTER, FIG. 375

LIST PRICE NOTICE—When ordering Tube Cutter Parts, or Extension Parts ALWAYS STATE NUMBER OF PIECE, HOW MANY and for WHAT SIZE Tube Cutter, or Extension wanted.

For Tube Cutter Fig. 375 Outside Dia. Tubes (in.)		2″	2¼″	2½″	2¾″	3″	3¼″	3½″	4″	4½″	5″	5½″	6″
Name of Piece	No. of Piece												
Handle	1	$1.20	$1.20	$1.20	$1.20	$1.80	$1.80	$1.80	$1.80	$3.00	$3.00	$3.00	$3.00
Feed Handle	2	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	2.00	2.00	2.00	2.00
Guard Sleeve	3-D	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	8.00	8.00	8.00	8.00
Sleeve Screws	3-C	.40	.40	.40	.40	.40	.40	.40	.40	.60	.60	.60	.60
Guard	4	3.00	4.00	4.00	4.80	5.00	5.40	5.60	6.00	10.00	12.00	12.00	12.00
Guard Screws	4-C	.40	.40	.40	.40	.40	.40	.40	.40	.60	.60	.60	.60
Short Bushing	5	1.20	1.20	1.20	1.20								
Long Bushing	6	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	2.00	2.00	2.00	2.00
Guide Ring	7	.80	.80	.80	.80	1.20	1.40	1.40	1.60	2.00	2.40	2.40	2.40
Nut	8	.40	.40	.40	.40	.40	.40	.40	.40	.60	.60	.60	.60
Steel Feed Nut	9	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.80	2.00	2.00	2.00
Rachet Collar	10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	1.60	1.60	1.60
Ratchet Frame	11	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	12.00	12.00	12.00	12.00
Ratchet Pawl	12	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.60	1.80	1.80	1.80
Ratchet Wheel	13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	4.00	4.00	4.00	4.00
Feed Stop	14	.60	.60	.60	.60								
Feed Stop Bolt	15-C					.40	.40	.40	.40	.60	.60	.60	.60
Frame	16	12.00	14.00	15.00	17.00	22.00	24.00	26.00	28.00	40.00	46.00	46.00	46.00
Feed Rod	17	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.80	2.00	2.00	2.00
Feed Wedge	18	4.60	4.60	4.60	4.60	6.00	6.00	6.00	6.00	9.00	10.00	10.00	10.00
Guide Plate	18-C	.40	.40	.40	.40	.60	.60	.60	.60	.80	.80	.80	.80
Cutter Wheel, each	19	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.60	2.60	2.60
CutterWheel,perdoz	19	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	12.00	15.00	15.00	15.00
Cutter Carrier Pin	19-C	.40	.40	.40	.40	.40	.40	.40	.40	.60	.60	.60	.60
Cutter Carrier	20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	5.00	6.00	6.00	6.00
Single Carrier Roll	21					.60	.60	.60	.60	1.00	1.20	1.20	1.20
Single Carrier Pin	21-C					.40	.40	.40	.40	.60	.60	.60	.60
Single Roll Carrier	22					2.00	2.00	2.00	2.00	4.00	4.00	4.00	4.00
Single Carrier Screw	22-C					.20	.20	.20	.20	.40	.40	.40	.40
Dbl. Carrier Rolls	23					1.40	1.40	1.40	1.40	2.40	2.80	2.80	2.80
Dbl. Carrier Pin	23-C					.60	.60	.60	.60	.80	.80	.80	.80
Dbl. Roll Carrier	24					4.00	4.00	4.00	4.00	7.00	8.00	8.00	8.00

PARTS FOR EXTENSION FRAME, FIG. 377

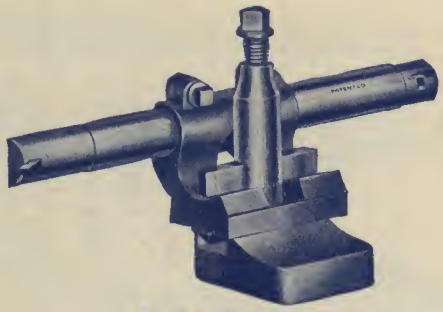
For Extension, Fig. 377 Size Extension		D-1½	D-3	D-6	D-8	E-1½	E-3	E-6	E-8	F-1½	F-3
Name of Piece	No. of Piece										
Length of Extension		19 in.	38 in.	6 ft.	8 ft.	19 in.	38 in.	6 ft.	8 ft.	19 in.	38 in
Extension Frame	377-F	$8.00	$18.00	$36.00	$44.00	$10.00	$22.00	$40.00	$48.00	$40.00	$48.0
ExtensionFeedRods	377-D	3.00	6.00	10.00	12.00	3.00	6.00	10.00	12.00	6.00	10.0
Couplings	377-C	.80	.80	.80	.80	.80	.80	.80	.80	1.20	1.2
Set Screws	377-S	.40	.40	.40	.40	.40	.40	.40	.40	.60	.6
Fits following size tubecutters, Fig. 375		<—2″, 2¼″, 2½″, 2¾″—>				<—3″, 3¼″, 3½″, 4″—>				<— 4½″, 5″, 5½″,	

WRITE FOR PRICES

Machinery Hand an Power
Tables
ial Whse Cuttin Ext

Scully Adjustable Boring and Turning Bars for Lathes

Better and Faster Work at Lower Cost



Fits Over Tool Post

Every shop using lathes for boring, turning or threading will find the large range, speedy adjustment and the quick changing of bars very important in effecting savings in shop costs.

The bars are one piece construction and made of special alloy steel. The ends of the bars are turned down a trifle scant to permit entering exact size holes. Both ends are hardened and cannot be damaged with rough usage.

Set No. A. Bars $\frac{3}{4}$″ dia. x 14″ long 1″ dia. x 16″ long $1\frac{1}{4}$″ dia. x 20″ long. Cutters $\frac{1}{4}$″, $\frac{5}{16}$″ and $\frac{3}{8}$″.
List Price.....Per Set **$34.00**

Set No. B. Bars 1″ dia. x 16″ long, $1\frac{1}{4}$″ dia. x 20″ long $1\frac{1}{2}$″ dia. x 24″ long, cutters $\frac{5}{16}$″, $\frac{3}{8}$″ and $\frac{7}{16}$″.
List Price.....Per Set **$40.00**

Small Boring Bar Set. Has same holder as No. A. Set equipped with one sleeve, one collet for each tool. Tools $\frac{1}{4}$″ dia. x 6″ long, $\frac{3}{8}$″ dia. x 8″ long $\frac{1}{2}$″ dia. x 8″ long and $\frac{5}{8}$″ dia. x 8″ long.
List Price.....Per Set **$55.00**

A circular giving complete information will be sent upon request

WRITE FOR PRICES

Scully Adjustable Boring and Turning Bars for Lathes

Heavy Type

Bars are always held parallel with center of lathes. Any desired rake can be obtained by adjusting bars in holder.

No unnecessary over-hang to bars as boring, turning and threading can be done close to cross slide by moving the bar farther into the holder.

Set No. C. Bars 1″ dia. x 16″ long, 1¼″ dia. x 20″ long, 1½″ dia. x 24″ long. Cutters $\frac{5}{16}$″, $\frac{3}{8}$″ and $\frac{7}{16}$″
List Price..... Per Set **$50.00**

Set No. D. Bars 1½″ dia. x 24″ long, 1¾″ dia. x 28″ long, 2″ dia. x 28″ long. Cutters $\frac{7}{16}$″ and ½″.
List Price..... Per Set **$90.00**

Set No. E. Cars 2″ dia. x 28″ long, 2½″ dia. x 28″ long' 3″ dia. x 30″ long. Cutters ½″ and $\frac{5}{8}$″.
List Price..... Per Set **$128.00**

Scully Adjustable Grinders

For internal and external grinding and for general tool room use.

The base and holder is the same as used with the Scully Boring and Turning Bars. It is not necessary to purchase the holder if shop is already equipped with our Boring and Turning Bars.

Circular with complete specifications will be sent upon request.

WRITE FOR PRICES

For blow-off service and a thousand other uses. Each valve tested under 250 lbs. pressure before leaving factory. No stuffing-box — no packing — no repairing. Will replace with new valve or refund money if any leaks in boiler blow-off service in two years. Disc and seat made perfectly true. Disc rotates and keeps even wear on valve seat. Valve is self-cleaning.

PRICE LIST—Revised Jan. 1, 1918

SUBJECT TO DISCOUNT

TYPE	¼″	⅜″	½″	¾″	1″	1¼″	1½″
Iron Body, Screwed	9.00	9.00	9.00	11.00	11.00	16.00	22.00
Iron Body, Flanged	—	—	—	—	15.00	19.00	26.00
Iron Body, Screwed-Angled	—	—	—	—	—	—	25.00
Iron Body, Flanged-Angled	—	—	—	—	—	—	35.00
Iron Body, Screwed, Rack & Pinion	—	—	—	—	—	—	—
Iron Body, Flanged, Rack & Pinion	—	—	—	—	—	—	—
Semi-Brass, Screwed	—	—	9.50	12.50	12.50	21.00	27.50
Semi-Brass, Flanged	—	—	—	20.00	20.00	28.00	35.00
Semi-Brass, Flanged-Angled	—	—	—	—	—	—	49.00
Semi-Brass, Screwed, Rack & Pinion	—	—	—	—	—	—	—
Semi-Brass, Flanged, Rack & Pinion	—	—	—	—	—	—	—
Brass, Screwed	—	—	10.00	15.00	15.00	25.00	35.00
Brass, Flanged	—	—	—	25.00	25.00	35.50	52.00
Brass, Flanged-Angled	—	—	—	—	—	—	68.00
Brass, Screwed, Rack & Pinion	—	—	—	—	—	—	—
Brass, Flanged, Rack & Pinion	—	—	—	—	—	—	—

TYPE	2″	2½″	3″	4″	5″	6″
Iron Body, Screwed	25.00	32.00	44.00	60.00	—	—
Iron Body, Flanged	30.00	39.00	50.00	70.00	—	—
Iron Body, Screwed-Angled	28.50	37.00	—	—	—	—
Iron Body, Flanged-Angled	39.00	48.50	63.00	—	—	—
Iron Body, Screwed, Rack & Pinion	34.50	40.00	54.00	71.00	95.00	110.00
Iron Body, Flanged, Rack & Pinion	39.00	48.00	60.00	81.00	100.00	117.00
Semi-Brass, Screwed	35.00	50.00	68.00	110.00	Write for Prices on These Sizes	
Semi-Brass, Flanged	45.00	60.00	85.00	135.00		
Semi-Brass, Flanged-Angled	56.00	73.00	—	—		
Semi-Brass, Screwed, Rack & Pinion	43.00	59.00	78.00	—		
Semi-Brass, Flanged, Rack & Pinion	53.00	69.00	95.00	—		
Brass, Screwed	45.00	65.00	86.00	130.00		
Brass, Flanged	65.00	90.00	120.00	180.00		
Brass, Flanged-Angled	81.00	109.00	—	—		
Brass, Screwed, Rack & Pinion	53.00	74.00	96.00	—		
Brass, Flanged, Rack & Pinion	73.00	99.00	130.00	—		

ACID IRON VALVES take same list as IRON BODY.
ACID RESISTING BRONZE VALVES take same list as BRASS.
CAST STEEL and ALUMINUM VALVE prices quoted on application.

Made in sizes ¼ in., ⅜ in., ½ in., ¾ in., 1 in., 1¼ in., 1½ in., 2 in., 2½ in., 3 in., 4 in., 5 in., 6 in., 7 in., 8 in., 10 in., 12 in., 14 in. and 16 in.

Used for handling Air, Steam, Water, Oils, Gas, Acids and Acid Mixtures.

Our interesting valve Catalogue sent upon request.

WRITE FOR PRICES

EVERLASTING'S COMPANION ANGLE VALVE

250 lb. Type

A fit companion for Regular Everlasting Valve, making "Everlasting Duplex Blow-off" the most reliable blow-off unit possible with two valves of different types. Our Two Year *Service* Guarantee backs both valves so installed.

PRICE LIST

Dated July, 1926 — Subject to Discount

1½" Iron Body Flanged	$44.00
2 " Iron Body Flanged	48.00
2½" Iron Body Flanged	57.50

EVERLASTING DUPLEX BLOW-OFF UNIT

250 lb. Type

PRICE LIST

Dated July, 1926 — Subject to Discount

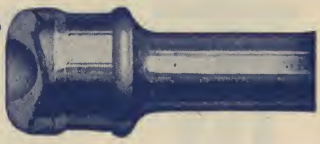
1½" Iron Body Straight Lever Flanged	$ 79.50
2 " Iron Body Straight Lever Flanged	84.00
2½" Iron Body Straight Lever Flanged	107.50
2 " Iron Body Rack and Pinion Flanged	93.00
2½" Iron Body Rack and Pinion Flanged	116.50

Valve Catalogue sent upon request

WRITE FOR PRICES

PNEUMATIC RIVET SETS AND STAYBOLT HEADERS

For Long Stroke Hammer



STYLE NO. 1. BUTTON HEAD

Carried in stock for ⅜ in., ½ in ⅝ in., ¾ in., 1 in., 1⅛ in., and 1¼ in. round head rivets.

STYLE NO. 2. CONE HEAD

Carried in stock for ⅜ in., ½ in., ⅝ in., ¾ in., 1 in., 1⅛ in. and 1¼ in. cone head rivets.

STYLE NO. 3. REGULAR FLAT HEAD

Carried in stock in ⅞ sizes for ⅞ in. and smaller rivets.

STYLE NO. 4. FLUSH END. EXTENSION HEAD

This style is made to order. Head usually 2¾ in. to 4 in. long. End made flat, convex or concave.

STYLE NO. 5. STAYBOLT HEADER

Carried in stock for ¾ in., ⅞ in., 1 in., 1 1/16 in. and 1⅛ in. staybolts. Other sizes made to order.

STYLE NO. 6. STAYBOLT HEADER

Improved Clover Leaf
Made with either round, hexagon or square shank.

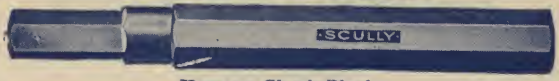
KELLY TUBE FLARING TOOL

This tool turns over the ends of tubes before expanding. Works very rapidly and does not crack or injure tubes.

	Price, Each
2 ins. and smaller	$4.00
2¼ ins	4.50
2½ ins	5.00

WRITE FOR PRICES

PNEUMATIC CHISEL BLANKS



Hexagon Shank Blank

Round Shank Blank

Differential Shank Blank
Prices on application.

PNEUMATIC BEADING TOOLS

¼ in.	$25.00	doz.
⅜ "	27.50	"

PNEUMATIC FLAT CHISELS

¼ in. 9 in. long	$19.00	doz.
⅜ " 9 " "	23.00	"

PNEUMATIC ROUND NOSE CHISELS

¼ in. 9 in. long	$20.00	doz.
⅜ " 9 " "	24.80	"

PNEUMATIC CAPE CHISELS

¼ in. 9 in. long	$20.00	doz.
⅜ " 9 " "	24.80	"

PNEUMATIC DIAMOND POINT CHISELS

¼ in. 9 in. long	$20.00	doz.
⅜ " 9 " "	24.80	"

PNEUMATIC CAULKING TOOLS

Furnished with either sharp or round point.

¼ in. 9 in. long	$19.00	doz.
½ " 9 " "	23.00	"

WRITE FOR DISCOUNTS.

Machinery
Hand an
Powe
Tables
ial
Whse
Cuttin
Ext

BOILERMAKERS' TOOLS.

Forged especially for us from high grade Tool Steel.

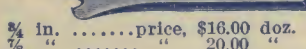
RIVET TONGS.

18 in. .....price, $16.00 doz.
30 " ..... " 20.00 "

BEADING TOOLS 8 in. long

¾ in. .....price, $16.00 doz.
⅞ " ..... " 20.00 "

FLAT CHISEL.



⅛	in.	6 in.	long,	$5.50 doz.
⅝	"	6 "	"	6.00 "
½	"	6 "	"	8.00 "
⅝	"	7 "	"	10.00 "
¾	"	8 "	"	14.00 "
¾	"	10 "	"	16.60 "
⅞	"	9 "	"	19.00 "
⅞	"	12 "	"	23.00 "
1	"	9 "	"	25.00 "
1	"	12 "	"	33.00 "

CAPE CHISEL.

⅛	in.	.....$6.60 doz.
⅝	"	..... 7.00 "
½	"	..... 9.00 "
⅝	"	.....11.00 "
¾	"	.....15.00 "
⅞	"	.....20.00 "
1	"	.....26.00 "

CENTER PUNCH.

¾ in. x 6 in. long. Price $16.00 doz.

MARKING PUNCHES.

Size	Length		
3/32	6	in.	.....$18.00 doz.
1/16	6	"	..... 18.00 "
5/32	6	"	..... 19.00 "
3/16	6	"	..... 19.00 "
7/32	6	"	..... 21.00 "
1/4	6	"	..... 21.00 "
9/32	6	"	..... 22.00 "
5/16	6	"	..... 22.00 "
11/32	6	"	..... 23.00 "
1	6	"	..... 23.00 "

CAULKING TOOLS.

No. 1—Sharp.
No. 2—Rounded.

¾ in. x 8 in..... ..$15.00 doz.
7/8 " x 9 " ..... 20.00 "

ROUND NOSE CHISEL AND RIVET TOOL.

5/16	in.	.....$6.60 doz.
3/8	"	..... 7.00 "
1/2	"	..... 9.00 "
5/8	"	.....11.00 "
3/4	"	.....15.00 "
7/8	"	.....20.00 "
1	"	.....26.00 "

DIAMOND POINT CHISEL.

5/16	in.	6 in.	long.....	$6.60 doz.
5/8	"	6 "	"	7.00 "
1/2	"	6 "	"	9.00 "
5/8	"	7 "	"	11.00 "
3/4	"	8 "	"	15.00 "
7/8	"	9 "	"	20.00 "
1	"	9 "	"	26.00 "

DRIFT PINS.

1/16	in.	.....Price,	$2.90 doz.
1/8	"	..... "	3.10 "
11/16	"	..... "	3.30 "
13/16	"	..... "	3.60 "
15/16	"	..... "	4.40 "

Barrel type for boiler work.
Plug type for structural work.

WRITE FOR DISCOUNTS.

BOILERMAKERS' TOOLS.

QUALITY ABSOLUTELY GUARANTEED

BOILERMAKERS' HAMMERS.

Weight. 2½ lbs., $4.75 each

CHIPPING HAMMERS.

Weight 1¾ and 2 lbs., $2.90 each.

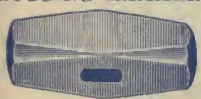
PLUGGING HAMMERS.

Weight, 2½ lbs. Price, $4.17 each.

BRIDGE BUILDERS' No. 1 HAMMERS.

Weight 4 lbs. Price, $5.67 each

FLOGGING HAMMERS.



Weight	2½	lbs.,	$4.00 each
"	4	"	5.17 "
"	5	"	6.25 "
"	6	"	7.08 "
"	7	"	8.34 "
"	8	"	9.17 "
"	10	"	11.42 "

RIVETING HAMMERS.

Weight 2½ lbs., $4.00 each
" 3 " 4.25 "

MACHINISTS' HAMMERS.

Weight 1½ lbs., $2.70 each

BEVEL FACE HAMMERS.

Weight 2½ lbs., Price, $4.00 each.

BRIDGE BUILDERS' No. 2 HAMMERS.

Weight 4½ lbs. Price, $6.08 each.

DOUBLE FACE SLEDGES

Weight	5	lbs.,	$6.25 each
"	6	"	7.08 "
"	7	"	8.34 "
"	8	"	9.17 "
"	10	"	11.42 "
"	12	"	14.00 "

Prices on application 14 lbs. and heavier.

WRITE FOR DISCOUNTS.

BOILERMAKERS' TOOLS.

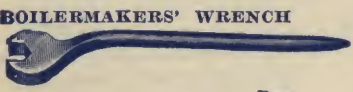
COLD AND HOT CHISELS.

1¼ in. sq. 7½ in. long, $44.00 doz.
1½ in. sq. 8 in. long, $50.00 doz.

SIDE SETS.

		Doz.
1¼ in. sq.	7½ in. long,	$44.00
1½ " "	8 " "	50.00

BOILERMAKERS' WRENCH



		Doz.
⅝ in.	9 in. long.	Price $14.00
½ "	11 " "	" 20.00
⅝ "	13 " "	" 22.00
¾ "	15 " "	" 25.00
⅞ "	17 " "	" 33.00
1 "	19 " "	" 40.00

CONICAL RIVET SNAPS.

Cone or Button Head	
⅜ in.	Price, 4.25 each.
½ "	" 4.25 "
⅝ "	" 4.42 "
¾ "	" 4.58 "
⅞ "	" 5.00 "

BACKING OUT PUNCH.

⅜	Punch size,	$32.00 doz.
½	" "	34.00 "
⅝	" "	40.00 "
¾	" "	44.00 "
⅞	" "	49.00 "
1	" "	53.00 "

FLATTERS.

	Each
3 in. Square Face.	Price, $5.50
4 " " "	" 7.00

TOP FULLERS.

½ in.,
¾ "
1 "
1¼ "
1½ "
1¾ "
2 "
2½ "
Write for Prices

BOTTOM FULLERS.

½ in.,
¾ "
1 "
1¼ "
1½ "
1¾ "
2 "
2½ "
Write for Prices

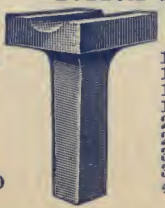
HARDIES

Price, $2.50 each.

TOP SWAGE.

½ in.,
¾ "
1 "
1¼ "
1½ "
1¾ "
2 "
2½ "
3 "
3½ "
4 "
Write for Prices

BOTTOM SWAGE.



½ in.,
¾ "
1 "
1¼ "
1½ "
1¾ "
2 "
2½ "
3 "
3½ "
4 "
Write for Prices

WRITE FOR DISCOUNTS.

Hammer Handles

We carry No. 1 grade in stock, made of selected second growth hickory

IN STOCK

Chipping or Machinists' Hammer Handles, 12 in., 14 in., 16 in.
Riveting or Machinists' Hammer Handles, 18 in., 20 in., 24 in.
Blacksmith Hammer Handles, 12 in., 14 in., 16 in., 18 in., 20 in., 22 in., 24 in., 26 in.
Sledge Handles, 30 in. and 36 in.
Maul Handles with round butt for Bark Covered Mauls 30 in. and 36 in.
Tool Handles, 24 in., 30 in., 36 in.

BARK COVERED MAULS.

Made of Special Selected Grub Hickory.

SIZES CARRIED IN STOCK.

Diam.	Length	Price Each	Diam.	Length	Price Each
3	in. x 6 in.	$0.40	6 in.	x 10 in.	$1.30
3½	in. x 7 in.	.50	6 in.	x 12 in.	1.40
4	in. x 8 in.	.70	7 in.	x 11 in.	1.50
4½	in. x 9 in.	.90	8 in.	x 12 in.	1.75
5	in. x 10 in.	1.10	9 in.	x 12 in.	2.00

WRITE FOR PRICES

PORTABLE RIVET FORGES.

CUMMING PATTERN. IN STOCK

Light, strong, portable, strong blast. Can be taken apart or put together very quickly. Largest piece 18 in. diameter, bronze gears.

Hearth..... .....18 in. dia.
Fan.....10 in. dia.
Height .....30 in.
Weight.....90 lbs.

NEW BUFFALO RIVET FORGE.

No. 310

The new Buffalo is equipped with a one-piece, deep drawn seamless fire-pan. A heavy, round tuyere plate distributes the heat so as to insure the best results in heating.

Hearth ..... 18 in.
Fan..... 10 in.
Weight .....95 lbs.

CHAMPION BALL-BEARING STEEL FORGES.

Regular and continuous positive blast.

For Government use, elevated and steam railroads, bridge and tank builders, miners, etc.

Height, 30 inches.

Cut shows No. 401, with shield.

IN STOCK.

No.	Style Forge	Hearth Inches	Diam. Fan Inches	Weight Lbs.
401	Rivet Forge with shield.....	18	9	90

WRITE FOR PRICES.

JMC EXPANSION REAMERS

Spiral Fluted

Blades are spiral fluted to take a shear cut. Body is made of tool steel. Slots are deep, V-shaped and tapered. The blades have firm, solid backing, preventing chattering.

ALL blades are interchangeable.

ALL sizes have a range of expansion of .057" and run .010" under size.

The JMC Reamer will cut **smooth, round, accurate** holes.

If any prove unsatisfactory money will be refunded.

Piston Pin Type

For Reaming Two Holes in Alignment

Has tension spring to hold blades firmly in place, and to permit easy and accurate adjustment. Tapered adjustable pilot insures perfect alignment of holes.

NET TRADE PRICES

Size	Price	Size	Price	Size	Price
.605"	$12.00	.875"	$15.00	1.125"	$18.00
.625"	12.00	.918"	16.00	1.156"	18.00
.656"	12.00	.9375"	16.00	1.1875"	19.00
.667"	12.00	.968"	16.00	1.2187"	19.00
.686"	12.00	.984"	16.00	1.25"	20.00
.735"	13.00	.999"	16.00	1.296"	20.00
.750"	13.00	1.0468"	16.00	1.312"	20.00
.796"	14.00	1.0625"	17.00	1.375"	21.00
.8125"	14.00	1.0937"	17.00	1.4375"	22.00
.842"	15.00	1.109"	18.00	1.50"	23.00
.859"	15.00				

GENERAL SERVICE TYPE

For Reaming Single Holes

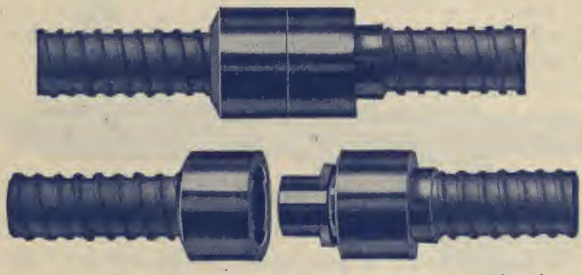
Size	Price	Size	Price	Size	Price
5/8"	$ 9.50	15/16"	$12.00	1 1/4"	$16.00
11/16"	9.50	1"	12.50	1 5/16"	17.00
3/4"	10.00	1 1/16"	13.00	1 3/8"	18.00
13/16"	10.50	1 1/8"	14.00	1 7/16"	19.00
7/8"	11.00	1 3/16"	15.00	1 1/2"	20.00

WRITE FOR SPECIAL CIRCULAR

THE SCULLY HOSE COUPLING.

IN STOCK.

Never allows the hose to become twisted or kinked, reducing the wear and tear on the hose. Cannot itself become disconnected. Never leaks; the higher the pressure the tighter the joint. Instantly disconnected by a combined pull and twist of the sleeve on the male end.



It swivels freely under the highest pressure, allowing the screwing in of connected nipples without disconnecting hose.

Made in the following sizes: ¼ in., ⅜ in., $\frac{7}{16}$ in., ½ in., ¾ in. pipe and hose ends, which are interchangeable with each other. Sizes 1 in. and 1¼ in. pipe and hose are interchangeable with each other. In ordering, designate whether

Male Hose

Female Hose

Male Pipe

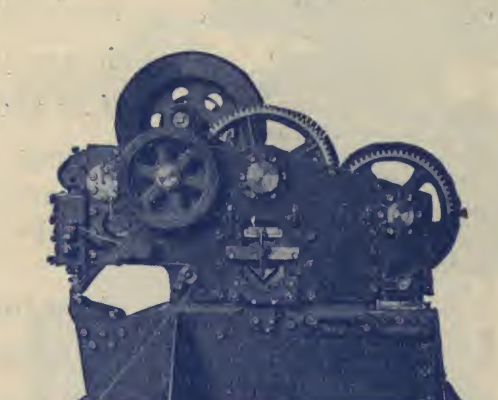
Female Pipe

hose or pipe, size, and male or female ends are wanted.

The joint is made by a rubber gasket, U shaped, as shown by the cut. This is very easily replaced when worn out, and is so held in place that it never blows out.

WRITE FOR PRICES.

Universal Shears, Punch and Bar Cutter



Can be furnished in seven different capacities.

Made of armor plate and steel casting, practically unbreakable.

Can be furnished in belt or motor drive.

Can also furnish separate machines.

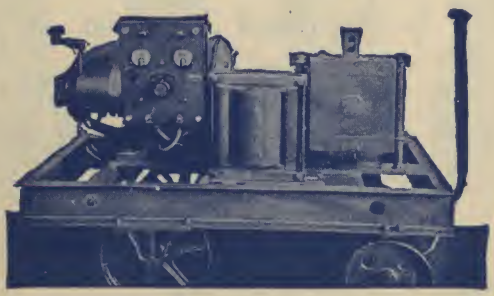
Send for catalog.

ELECTRIC HOISTS

Can be furnished in many sizes and types

Send for Catalog

ELECTRIC ARC WELDERS

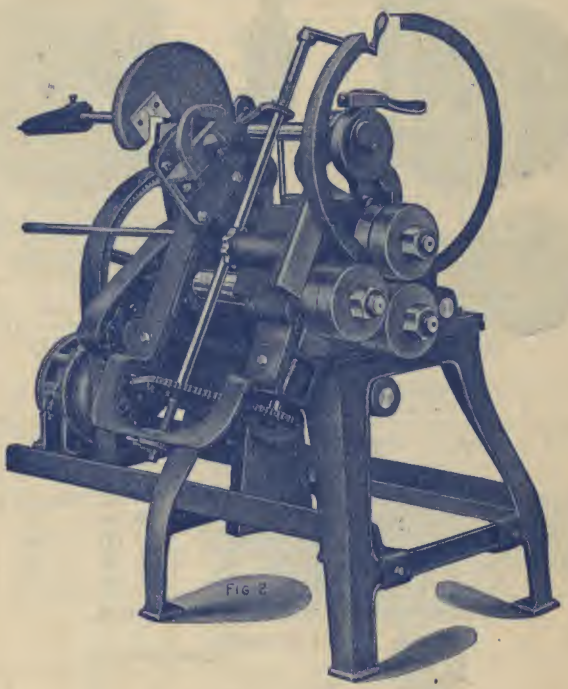


Capacities 200, 300 and 400 amps—Motor or Engine driven.

WRITE FOR DISCOUNTS

Angle Bending Rolls

LIGHT TYPE



Made in one size only.

Capacity 2 inch angles or lighter.

Arranged for belt or motor drive, all live rolls.

Can be equipped with angle shears

WRITE FOR PRICE

FORGED STEEL SCREW PUNCHES.

Fig. 1 IN STOCK. Fig. 2

Fig. 4

Drill Socket to be used with ratchet wrench.

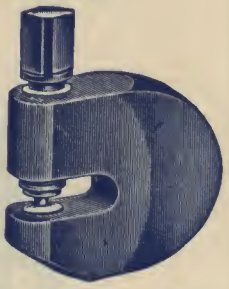


Fig. 3

Made especially for Boilermakers and others requiring a strong, substantial tool. Have large screws carefully fitted with hardened bearing cap for punch.

The ratchet handle (Fig. 3) used on ratchet punch (Fig. 2) is a great time saver.

In ordering mention size of hole to be punched.

LIST PRICES.

Size	Will Punch Hole	Will Punch Thick	Depth of Throat	Weight	List Price inc. 1 punch and die	Extra Punch	Extra Die
No. 0	3/8 in.	1/8 in.	1 1/2 in.	5 lbs.	$14.00	$0.80	$1.00
1	1/2	5/16	1 1/2	20	16.00	.90	1.20
2	5/8	5/8	2 1/2	48	25.00	1.20	1.40
3	3/4	3/4	3 1/4	70	32.00	1.50	1.60
4	3/4	3/4	4	100	40.00	1.50	1.60

CAST STEEL SCREW PUNCHES.

IN STOCK.

LIST PRICES.

Size	Will Punch Hole in.	Will Punch Thick in.	Depth of Throat	Weight	List Price inc. 1 punch and die	Extra P'nch	Extra Die
A	5/16	1/4	1 1/2	15	$20.00	$2.10	$1.40
B	1/2	1/4	1 1/2	17	24.00	2.10	1.40
C	1/2	5/16	1 1/2	27	30.00	2.40	1.60
D	3/4	1/2	2 1/4	40	40.00	2.40	1.60
E	3/4	5/8	3	60	60.00	3.00	2.00
G	3/4	3/4	4	110	80.00	3.00	2.00

Cast steel screw punches can be furnished with ratchet head.

List price on Screw Punches includes one punch and die.
Depth of throat is distance from center of punch.
All sizes carried in stock.

In ordering mention size of hole to be punched.

Ratchet Handle, fits all sizes forged and cast steel Punches.. $15.00

WRITE FOR PRICES.

RAIL AND STRUCTURAL IRON PUNCHES

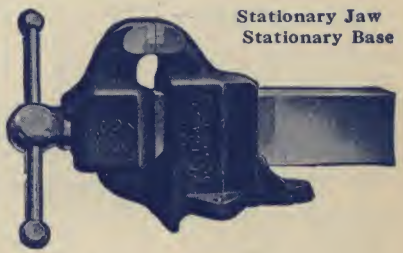
Special punch for punching rails and structural steel.

Note—Cut shows Bar Head. Can also be furnished with Ratchet Head.

No.	Depth of Gap, Inch	Height of Gap, Inch	Capacity	Weight, Lbs.	List Price, inc. 1 Punch and Die	Extra Punches	Extra Dies
10	2¼	3½	¾in. in ⅜in.	55	$25.00	$1.40	$1.25
12	3	4½	¾in. in ½in.	80	30.00	1.75	1.60
14	4	4½	1in. in ½in.	150	44.00	2.00	1.80
16	5½	6½	1in. in ½in.	180	50.00	2.00	1.80

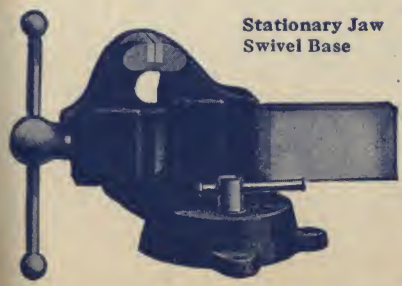
YOSTS MACHINISTS' VISES

BUILT FOR SERVICE GUARANTEED THROUGHOUT



Stationary Jaw
Stationary Base

Vise No.	Width of Jaw, Ins.	Opens Inches	Weight Pounds	List Price
102	2	3	10	$ 8.25
102½	2½	3½	14	9.00
103	3	4	23	10.00
103½	3½	5	30	11.25
104	4	6	43	12.75
104½	4½	6½	57	15.50
105	5	7½	72	20.00
105½	5½	9	102	30.00
106	6	10	130	39.00
107	7	12	183	55.00
108	8	13	250	75.00

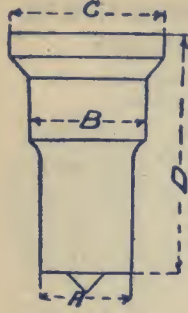


Stationary Jaw
Swivel Base

Vise No.	Width of Jaw, Ins.	Opens Inches	Weight Pounds	List Price
202	2	3	15	$ 10.50
202½	2½	3½	18	12.00
203	3	4	28	13.00
203½	3½	5	37	15.00
204	4	6	50	17.00
204½	4½	6½	66	20.00
205	5	7½	88	30.00
205½	5½	9	118	38.00
206	6	10	148	52.00
207	7	12	210	70.00
208	8	13	280	98.00

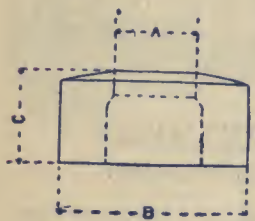
WRITE FOR DISCOUNTS

PUNCHES, DIES AND COUPLINGS.



In Stock. **STANDARD PUNCHES.**

No. of Punch.	Price Each.	Dimensions. A	B	C	D
2	$0.38	1/8 to 3/8	13/32	17/32	1 9/32
3	.50	1/8 to 9/16	19/32	23/32	1 15/32
4	.75	1/4 to 13/16	25/32	29/32	1 1/2
5	1.08	3/8 to 1	1 1/32	1 5/32	1 15/16
6	1.50	9/16 to 1 1/4	1 7/32	1 3/8	2 3/8
7	2.00	11/16 to 1 9/16	1 17/32	1 11/16	2 11/16
8	3.00	1 to 1 3/4	1 25/32	2 1/16	3
9	5.00	1 1/2 to 2 1/4	2 9/32	2 9/16	3
10	6.50	2 to 2 5/8	2 21/32	2 31/32	3



STANDARD DIES.

No. of Die.	Price Each.	Dimensions. A	B	C
2	$0.75	1/8 to 5/16	3/4	5/8
3	1.00	1/8 to 9/16	1	3/4
4	1.50	1/4 to 3/4	1 1/2	1
4-W	1.70	1/4 to 7/8	1 11/16	1 1/16
4-C	1.85	3/8 to 7/8	1 13/16	1 1/8
5	2.00	3/8 to 1	2	1
5-C	2.10	3/8 to 1	2	1 1/8
5-W	2.40	1/2 to 1 1/8	2 3/16	1 1/4
6	2.50	1/2 to 1 1/4	2 3/8	1 1/4
6-W	4.00	1/2 to 1 7/16	2 11/16	1 1/2
7	4.50	3/4 to 1 9/16	2 7/8	1 1/4
7-H	4.65	3/4 to 1 9/16	2 15/16	1 1/4

Punches and dies made of high grade tool steel and guaranteed. Standard sizes carried in stock for immediate shipment.

In ordering mention size of hole to be punched.

Standard Punches, Cleveland Steel Tool Co.

IN STOCK

No. of Punch	Price Each	A	B	C	D
207	$0.95	9/32 to 9/16"	9/16"	3/4"	2 1/8 "
215	1.05	5/16 to 11/16"	3/4"	1"	2 1/8 "
216	1.08	7/16 to 15/16"	1 1/32"	1 5/32"	1 15/16"
219	1.15	7/16 to 1 1/16"	1 1/16"	1 1/4 "	2 1/8 "
220	1.25	7/16 to 1 1/16"	1 1/16"	1 1/4 "	2 1/4 "
221	1.50	7/16 to 1 1/16"	1 7/32"	1 3/8 "	2 3/8 "

Standard Dies, Cleveland Steel Tool Co.

IN STOCK

No. of Die	Price Each	A	B	C
407	$1.25	5/16 to 1"	1 1/2"	7/8"
413	1.85	5/16 to 5/8"	1 13/16"	1 1/8"
417	2.00	5/16 to 1 1/8"	2"	1"
418	2.10	5/16 to 1 1/8"	2"	1 1/8"

WRITE FOR DISCOUNTS.

WEIGHTS OF SHEETS AND PLATES

Estimated weight by standard gauges.

No. of Gauge or Thickness of Sheet	Approximate Thickness in Inches				Weight per Square Foot in Pounds					
	U. S. Standard adopted by U. S. Gov't July 1, 1893		Stubb's or Birmingham Wire Gauge	American or Brown & Sh'rpe's	U. S. Standard	Mills Standard	Birmingham Wire Gauge		American or Brown & Sharpe's	
	Fractions	Decimals	Decimals	Decimals	Steel	Steel	Steel	Iron	Steel	Iron
7-0's	1-2	.5	.....	.....	20.00	20.4	.....	.....	.....	.....
6-0's	15-32	.468	.....	.....	18.75	19.125	.....	.....	.....	.....
5-0's	7-16	.437	.....	.....	17.50	17.85	.....	.....	.....	.....
0000	13-32	.406	.454	.46	16.25	16.575	18.46	18.22	18.77	18.40
000	3-8	.375	.425	.409	15.	15.30	17.28	17.05	16.71	16.38
00	11-32	.343	.38	.364	13.75	14.025	15.45	15.25	14.88	14.59
0	5-16	.312	.34	.324	12.50	12.75	13.82	13.64	13.26	13.00
1	9-32	.281	.30	.289	11.25	11.475	12.20	12.04	11.80	11.57
2	17-64	.265	.284	.257	10.625	10.8375	11.55	11.40	10.51	10.30
3	1-4	.25	.259	.229	10.	10.2	10.53	10.39	9.36	9.18
4	15-64	.234	.238	.204	9.375	9.5625	9.68	9.55	8.34	8.17
5	7-32	.218	.22	.181	8.75	8.925	8.95	8.83	7.42	7.28
6	13-64	.203	.203	.162	8.125	8.2875	8.25	8.15	6.61	6.48
7	3-16	.187	.18	.144	7.5	7.65	7.32	7.22	5.89	5.77
8	11-64	.171	.165	.128	6.875	7.0125	6.71	6.62	5.24	5.14
9	5-32	.156	.148	.114	6.25	6.375	6.02	5.94	4.67	4.58
10	9-64	.140	.134	.101	5.625	5.7375	5.45	5.38	4.16	4.08
11	1-8	.125	.12	.09	5.	5.1	4.88	4.82	3.70	3.63
12	7-64	.109	.109	.08	4.375	4.625	4.43	4.37	3.30	3.23
13	3-32	.093	.095	.072	3.75	3.825	3.86	3.81	2.94	2.88
14	5-64	.078	.083	.064	3.125	3.1875	3.37	3.33	2.62	2.56
15	9-128	.070	.072	.057	2.8125	2.86875	2.93	2.89	2.33	2.28
16	1-16	.062	.065	.05	2.5	2.55	2.64	2.61	2.07	2.03
17	9-160	.056	.058	.045	2.25	2.295	2.36	2.33	1.85	1.81
18	1-20	.05	.049	.04	2.	2.04	1.99	1.97	1.64	1.61
19	7-160	.043	.042	.035	1.75	1.785	1.71	1.69	1.46	1.44
20	3-80	.037	.035	.032	1.50	1.53	1.42	1.40	1.31	1.28
21	11-320	.034	.032	.028	1.375	1.4025	1.30	1.28	1.16	1.14
22	1-32	.031	.028	.025	1.25	1.275	1.14	1.12	1.03	1.01
23	9-320	.028	.025	.022	1.125	1.1475	1.02	1.00	.922	.904
24	1-40	.025	.022	.020	1.	1.02	.895	.883	.82	.804
25	7-320	.021	.02	.017	.875	.8925	.813	.803	.73	.716
26	3-160	.018	.018	.015	.75	.765	.732	.722	.649	.636
27	11-640	.017	.016	.014	.6875	.70125	.651	.642	.579	.568
28	1-64	.015	.014	.012	.625	.6375	.569	.562	.514	.504
29	9-640	.014	.013	.011	.5625	.57375	.....	.....	.461	.452
30	1-80	.012	.012	.01	.5	.51	.....	.....	.408	.46
31	7-640	.010	.01	.008	.4375	.44625	.....	.....	.363	.356
32	13-1280	.010	.009	.008	.4062	.414375	.....	.....	.326	.320
33	3-320	.009	.008	.007	.375	.3825	.....	.....	.29	.284
34	11-1280	.008	.007	.006	.3437	.350625	.....	.....	.257	.252
35	5-640	.007	.005	.005	.3125	.31885	.....	.....	.228	.224
36	9-1280	.007	.004	.....	.2812	.286875	.....	.....	.....	.....
37	17-2560	.006	.....	.....	.2656	.2709375	.....	.....	.....	.....
38	1-160	.006	.....	.....	.25	.255	.....	.....	.....	.....

The U. S. Standard Gauge is the one commonly used in the United States.

All steel sheets in our stock ARE rolled to the U. S. Standard Gauge.

Commercial Practice permits of a tonnage weight variations of 2½% either way on gauges 17 to 30, inclusive, 5% either way on gauges No. 16 to No. 8.

Tables

WEIGHTS OF STEEL BOILER HEADS

Estimated weight. Showing sizes we can furnish.

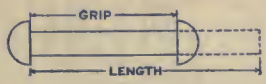
Diam. of Heads in Inches	Thickness of Heads														
	1/8	5/32	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1
16	7	11	15	18	22	25	29	....	....	....	....	....	....	....	....
18	9	14	18	23	27	32	36	....	....	....	....	....	....	....	....
20	11	17	23	28	34	39	45	....	....	....	....	....	....	....	....
22	14	21	27	34	41	48	54	....	....	....	....	....	....	....	....
24	16	25	32	41	49	57	65	....	....	....	....	....	....	....	....
26	19	29	38	47	57	66	76	....	....	....	....	....	....	....	....
28	22	33	44	55	66	77	88	....	....	....	....	....	....	....	....
30	25	38	51	63	76	88	101	....	....	....	....	....	....	....	....
32	29	43	57	72	86	100	114	....	....	....	....	....	....	....	....
34	33	49	65	81	97	113	129	....	....	....	....	....	....	....	....
36	37	55	73	91	109	127	145	163	181	199	217	....	....	....	....
38	41	61	81	101	121	141	161	181	201	221	241	....	....	....	....
40	45	67	90	112	134	156	178	201	223	248	267	....	....	....	....
42	50	74	99	123	148	173	197	222	246	271	295	....	....	....	....
44	54	81	108	135	162	189	216	243	270	297	324	....	....	....	....
46	59	89	118	148	177	206	236	265	295	324	353	....	....	....	....
48	65	97	129	161	193	225	257	289	321	353	385	....	....	....	....
50	....	105	140	174	209	244	279	313	347	383	418	....	....	....	....
52½	....	115	153	192	230	268	307	345	384	422	460	....	....	....	....
54	....	122	163	203	244	284	325	365	406	447	487	....	....	....	....
56	....	131	175	219	262	306	349	393	437	480	524	....	....	....	....
58½	....	143	191	238	287	335	382	430	477	525	572	....	....	....	....
59	....	146	194	243	291	339	388	436	485	533	581	....	....	....	....
60	....	151	201	251	301	351	401	451	501	551	601	....	....	....	....
62	....	161	214	268	321	375	428	482	535	589	642	....	....	....	....
64	....	171	228	285	342	399	456	513	570	627	684	....	....	....	....
65	....	177	236	294	353	412	470	529	588	647	706	....	....	....	....
66	....	182	243	303	364	425	485	546	606	667	727	....	....	....	....
68	....	194	258	322	387	451	520	580	644	709	773	....	....	....	....
70	....	205	273	341	409	478	546	614	682	750	818	....	....	....	....
71	....	211	281	351	421	491	561	632	702	772	842	....	....	....	....
72	....	217	289	361	433	505	577	649	721	794	866	....	....	....	....
74	....	229	305	381	457	534	610	686	762	838	914	....	....	....	....
76	....	241	322	402	482	563	643	723	804	884	964	1045	1125	1205	1286
77	....	....	330	413	495	578	660	743	825	907	990	1072	1155	1237	1320
78	....	....	339	424	508	593	677	762	847	931	1016	1100	1185	1270	1354
80	....	....	357	446	535	624	713	802	891	980	1069	1158	1247	1336	1425
82	....	....	375	468	562	655	749	842	936	1029	1123	1216	1310	1403	1497
84	....	....	393	491	589	687	786	884	982	1080	1178	1276	1374	1472	1571
86	....	....	412	515	618	721	823	926	1029	1132	1235	1338	1441	1543	1646
88	....	....	431	539	647	754	862	970	1077	1184	1292	1400	1507	1615	1723
89	....	....	441	551	661	772	882	992	1102	1212	1322	1433	1543	1653	1763
90	....	....	451	564	676	789	902	1014	1127	1240	1352	1465	1578	1690	1803
92	....	....	471	589	707	825	942	1060	1178	1295	1413	1531	1648	1766	1883
94	....	....	492	615	738	861	984	1107	1229	1352	1475	1598	1721	1844	1967
96	....	....	513	641	770	898	1026	1154	1282	1410	1539	1667	1795	1923	2052
98	....	....	535	668	802	935	1069	1203	1336	1470	1603	1737	1870	2004	2138
100	....	....	557	696	835	974	1113	1252	1391	1530	1669	1808	1948	2087	2226
101	....	....	568	710	852	994	1135	1277	1419	1561	1703	1845	1987	2128	2270
102	....	....	....	724	869	1013	1158	1303	1447	1592	1737	1881	2026	2171	2316
103	....	....	....	738	886	1033	1181	1328	1476	1624	1771	1919	2066	2214	2361
104	....	....	....	753	903	1053	1204	1354	1505	1655	1806	1956	2106	2257	2407
106	....	....	....	782	938	1094	1251	1407	1563	1719	1876	2032	2188	2345	2501
108	....	....	....	812	974	1136	1298	1460	1623	1785	1947	2109	2277	2434	2596
110	....	....	....	842	1010	1178	1347	1515	1683	1852	2020	2188	2356	2525	2693
112	....	....	....	873	1047	1222	1396	1571	1745	1920	2094	2268	2443	2617	2792
114	....	....	....	904	1085	1266	1446	1627	1808	1989	2169	2350	2531	2712	2892
116	....	....	....	936	1123	1310	1498	1685	1872	2059	2246	2433	2620	2808	2995
118	....	....	....	969	1162	1356	1550	1743	1937	2131	2324	2518	2712	2905	3099
120	....	....	....	1002	1202	1402	1603	1803	2003	2203	2404	2604	2804	3005	3205
122	....	....	....	1036	1243	1450	1657	1864	2071	2278	2485	2692	2899	3106	3313
124	....	....	....	1070	1284	1497	1711	1925	2139	2353	2567	2781	2994	3208	3422

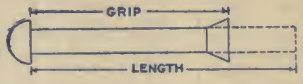
See pages 44 and 45 for Stock on Hand.

CIRCUMFERENCES AND AREAS OF CIRCLES

OF ONE INCH				OF INCHES OR FEET					
Fract.	Dec.	Circ.	Area	Dia.	Circ.	Area.	Dia.	Circ.	Area.
1-64	.015625	.04909	.00019	1	3.1416	.7854	64	201.06	3216.99
1-32	.03125	.09818	.00077	2	6.2832	3.1416	65	204.20	3318.31
3-64	.046875	.14726	.00173	3	9.4248	7.0686	66	207.34	3421.19
1-16	.0625	.19635	.00307	4	12.5664	12.5664	67	210.49	3525.65
5-64	.078125	.24545	.00479	5	15.7080	19.635	68	213.63	3631.68
3-32	.09375	.29452	.00690	6	18.850	28.274	69	216.77	3739.28
7-64	.109375	.34363	.00939	7	21.991	38.485	70	219.91	3848.45
1-8	.125	.39270	.01227	8	25.133	50.266	71	223.05	3959.19
9-64	.140625	.44181	.01553	9	28.274	63.617	72	226.19	4071.50
5-32	.15625	.49087	.01917	10	31.416	78.540	73	229.34	4185.39
11-64	.171875	.53999	.02320	11	34.558	95.033	74	232.48	4300.84
3-16	.1875	.58905	.02761	12	37.699	113.1	75	235.62	4417.86
13-64	.203125	.63817	.03241	13	40.841	132.73	76	238 76	4536.46
7-32	.21875	.68722	.03758	14	43.982	153.94	77	241.90	4656.63
15-64	.234375	.73635	.04314	15	47.124	176.71	78	245.04	4778.36
1-4	.25	.78540	.04909	16	50.265	201.06	79	248.19	4901.67
17-64	.265625	.83453	.05542	17	53.407	226.98	80	251.33	5026.55
9-32	.28125	.88357	.06213	18	56.549	254.47	81	254.47	5153.00
19-64	.296875	.93271	.06922	19	59.690	283.53	82	257.61	5281.02
5-16	.3125	.98175	.07670	20	62.832	314.16	83	260.75	5410.61
21-64	.328125	1.0309	.08456	21	65.973	346.36	84	263.89	5541.77
11-32	.34375	1.0799	.09281	22	69.115	380.13	85	267.04	5674.50
23-64	.359375	1.1291	.10144	23	72.257	415.48	86	270.18	5808.80
3-8	.375	1.1781	.11045	24	75.398	452.39	87	273.32	5944.68
25-64	.390625	1.2273	.11984	25	78.540	490.87	88	276.46	6082.12
13-32	.40625	1.2763	.12962	26	81.681	530.93	89	279.60	6221.14
27-64	.421875	1.3254	.13979	27	84.823	572.56	90	282.74	6361.73
7-16	.4375	1.3744	.15033	28	87.965	615.75	91	285.88	6503.88
29-64	.453125	1.4236	.16126	29	91.106	660.52	92	289.03	6647.61
15-32	.46875	1.4726	.17257	30	94.248	706.86	93	292.17	6792.91
31-64	.484375	1.5218	.18427	31	97.389	754.77	94	295.31	6939.78
1-2	.5	1.5708	.19635	32	100.53	804.25	95	298.45	7088.22
33-64	.515625	1.6199	.20880	33	103.67	855.30	96	301.59	7238.23
17-32	.53125	1.6690	.22166	34	106.81	907.92	97	304.73	7339.81
35-64	.546875	1.7181	.23489	35	109.96	962.11	98	307.88	7542.96
9-16	.5625	1.7671	.24850	36	113.10	1017.88	99	311.02	7697.69
37-64	.578125	1.8163	.26248	37	116.24	1075.21	100	314.16	7853.98
19-32	.59375	1.8653	.27688	38	119.38	1134.11	101	317.30	8011.85
39-64	.609375	1.9145	.29164	39	122.52	1194.59	102	320.44	8171.28
5-8	.625	1.9635	.30680	40	125.66	1256.64	103	323.58	8332.29
41-64	.640625	2.0127	.32232	41	128.81	1320.25	104	326.73	8494.87
21-32	.65625	2.0617	.33824	42	131.95	1385.44	105	329.87	8659.01
43-64	.671875	2.1108	.35453	43	135.09	1452.20	106	333.01	8824.73
11-16	.6875	2.1598	.37122	44	138.23	1520.53	107	336.15	8992.02
45-64	.703125	2.2090	.38828	45	141.37	1590.43	108	339.29	9160.88
23-32	.71875	2.2580	.40574	46	144.51	1661.90	109	342.43	9331.32
47-64	.734375	2.3072	.42356	47	147.65	1734.94	110	345.58	9503.32
3-4	.75	2.3562	.44179	48	150.80	1809.56	111	348.72	9676.89
49-64	.765625	2.4054	.45253	49	153.94	1885.74	112	351.86	9852.03
25-32	.78125	2.4544	.47937	50	157.08	1963.50	113	355.00	10028.75
51-64	.796875	2.5036	.49872	51	160.22	2042.82	114	358.14	10207.03
13-16	.8125	2.5525	.51849	52	163.36	2123.72	115	361.28	10386.89
53-64	.828125	2.6017	.53862	53	166.50	2206.18	116	364.42	10568.32
27-32	.84375	2.6507	.55914	54	169.65	2290.22	117	367.57	10751.32
55-64	.859375	2.6999	.58003	55	172.79	2375.83	118	370.71	10935.88
7-8	.875	2.7489	.60132	56	175.93	2463.01	119	373.85	11122.02
57-64	.890625	2.7981	.62298	57	179.07	2551.76	120	376.99	11309.73
29-32	.90625	2.8471	.64504	58	182.21	2642.08	121	380.13	11499.01
59-64	.921875	2.8963	.66746	59	185.35	2733.97	122	383.27	11689.87
15-16	.9375	2.9452	.69029	60	188.50	2827.43	123	386.42	11882.29
61-64	.953125	2.9945	.71349	61	191.64	2922.47	124	389.56	12076.28
31-32	.96875	3.0434	.73708	62	194.78	3019.07	125	392.70	12271.85
3-64	.984375	3.0928	.76097	63	197.92	3117.25	126	395.84	12468.98

LENGTH OF RIVETS NECESSARY FOR VARIOUS GRIPS INCLUDING AMOUNT NECESSARY TO FORM ONE HEAD





Grip of Rivet In Inches	Diameter of Rivet in Inches							
	¼	⅜	½	⅝	¾	⅞	1	1⅛
½	1	1¼	1½	1¾	1⅞	2	2⅛	2¼
⅝	1⅛	1⅜	1⅝	1⅞	2	2⅛	2¼	2⅜
¾	1¼	1½	1¾	2	2⅛	2¼	2⅜	2½
⅞	1⅜	1⅝	1⅞	2⅛	2¼	2⅜	2½	2⅝
1	1½	1¾	2	2¼	2⅜	2½	2⅝	2¾
1⅛	1⅝	1⅞	2⅛	2⅜	2½	2⅝	2¾	2⅞
1¼	1¾	2	2¼	2½	2⅝	2¾	2⅞	3
1⅜	1⅞	2⅛	2⅜	2⅝	2⅞	3	3	3⅛
1½	2	2¼	2½	2¾	3	3⅛	3⅛	3¼
1⅝	2⅛	2⅜	2⅝	2⅞	3⅛	3¼	3¼	3½
1¾	2¼	2½	2¾	3	3¼	3⅜	3½	3⅝
1⅞	2⅜	2⅝	2⅞	3⅛	3⅜	3½	3⅝	3¾
2	2½	2¾	3⅛	3⅜	3½	3⅝	3¾	3⅞
2⅛	2⅝	2⅞	3¼	3½	3⅝	3¾	3⅞	4
2¼	2¾	3	3⅜	3⅝	3¾	3⅞	4	4⅛
2⅜	2⅞	3⅛	3½	3¾	3⅞	4	4⅛	4¼
2½	3	3¼	3⅝	3⅞	4	4⅛	4¼	4⅜
2⅝	3⅛	3½	3¾	4	4⅛	4¼	4⅜	4½
2¾	3¼	3⅝	3⅞	4⅛	4¼	4⅜	4½	4⅝
2⅞	3⅜	3¾	4	4¼	4⅜	4½	4⅝	4¾
3	3½	3⅞	4⅛	4⅜	4½	4⅝	4¾	4⅞
3⅛	3⅝	4	4¼	4½	4¾	4¾	5	5
3¼	3¾	4⅛	4⅜	4⅝	4⅞	5	5⅛	5¼
3⅜	3⅞	4¼	4½	4⅞	5	5⅛	5¼	5⅜
3½	4	4⅜	4⅝	5	5⅛	5¼	5⅜	5½
3⅝	4⅛	4½	4¾	5⅛	5¼	5⅜	5½	5⅝
3¾	4¼	4⅝	4⅞	5¼	5⅜	5½	5⅝	5¾
3⅞	4⅜	4¾	5	5⅜	5½	5⅝	5¾	5⅞
4	4½	4⅞	5⅛	5½	5⅝	5¾	5⅞	6
4⅛	4⅝	5	5¼	5⅝	5¾	5⅞	6	6⅛
4¼	4¾	5⅛	5½	5¾	5⅞	6	6⅛	6¼
4⅜	4⅞	5¼	5⅝	5⅞	6	6⅛	6¼	6⅜
4½	5	5⅜	5¾	6	6⅛	6¼	6⅜	6½
4⅝	5⅛	5½	5⅞	6⅛	6¼	6⅜	6½	6⅝
4¾	5¼	5⅝	6	6¼	6½	6⅝	6¾	6¾
4⅞	5⅜	5¾	6⅛	6½	6⅝	6¾	6⅞	6⅞
5	5½	5⅞	6¼	6⅝	6¾	6⅞	7	7
5⅛	5⅝	6	6⅜	6¾	6⅞	7	7⅛	7⅛
5¼	5¾	6⅛	6½	6⅞	7	7⅛	7¼	7¼
5⅜	5⅞	6¼	6⅝	7	7⅛	7¼	7⅜	7⅜
5½	6	6⅜	6¾	7⅛	7¼	7⅜	7½	7½
5⅝	6⅛	6½	6⅞	7¼	7⅜	7½	7⅝	7⅝
5¾	6¼	6⅝	7	7⅜	7½	7⅝	7¾	7¾
5⅞	6⅜	6¾	7⅛	7½	7⅝	7¾	7⅞	7⅞
6	6½	7	7¼	7⅝	7⅞	7⅞	8	8⅛

Amount in Inches to be substracted from above Lengths for Countersunk Heads

⅛	¼	½	½	⅝	¾	⅞	⅞

LONGITUDINAL RIVETED JOINTS

Designed and advocated by Hartford Steam Boiler Inspection & Insurance Co.

Table of Dimensions of Single Riveted Lap Joints

Rivets 42,000 lbs. Single Shear; Plates 55,000 lbs. Tens. Strength

Thickness of Plate	Diam. of Rivet Holes	Efficiency %	Pitch of Rivets	A	Thickness of Plate	Diam. of Rivet Holes	Efficiency %.	Pitch of Rivets	A
1/4"	5/8"	58.3	1 1/2"	11/16"	13/32"	13/16"	57.6	2 1/4"	1 13/32"
5/16"	11/16"	59.2	1 11/16"	1 1/16"	7/16"	7/8"	57.7	2 3/8"	1 1/2"
3/8"	3/4"	57.5	1 13/16"	1 7/8"	15/32"	15/16"	56.4	2 1/2"	1 15/32"
7/16"	7/8"	58.8	2 1/16"	1 5/16"	1/2"	1 1/16"	54.8	2 11/16"	1 11/32"
1/2"	7/8"	57.6	2 1/8"	1 5/16"					

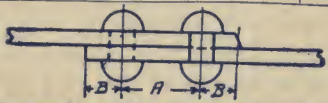


Table of Dimensions of Double Riveted Lap Joints

Rivets 42,000 lbs. Single Shear; Plates 55,000 lbs. Tens. Strength

Thickness of Plate	Diameter of Rivet Holes	Efficiency %	Pitch of Rivets	A	B
1/4"	5/8"	73.6	2 3/8"	1 1/16"	11/16"
5/16"	5/8"	72.0	2 5/16"	1 13/16"	11/16"
3/8"	11/16"	71.8	2 7/16"	1 13/16"	1 1/16"
7/16"	3/4"	72.0	2 11/16"	1 5/8"	1 1/16"
1/2"	11/16"	71.7	2 7/8"	1 5/8"	1 1/16"
13/32"	11/16"	70.0	2 15/16"	1 11/16"	1 1/16"
7/16"	11/16"	70.0	3"	1 11/16"	1 1/16"
15/32"	11/16"	70.0	3 1/16"	1 11/16"	1 1/16"
1/2"	1"	70.0	3 3/8"	2"	1 1/2"

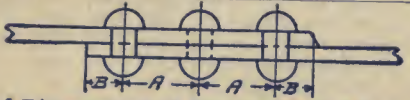


Table of Dimensions of Treble Riveted Lap Joints

Rivets 42,000 lbs. Single Shear; Plates 55,000 lbs. Tens. Strength

Thickness of Plate	Diameter of Rivet Holes	Efficiency %	Pitch of Rivets	A	B
1/4"	5/8"	78.2	2 7/8"	1 3/4"	11/16"
5/16"	5/8"	78.2	2 7/8"	1 3/4"	11/16"
3/8"	11/16"	77.0	3"	1 7/8"	1 1/16"
7/16"	11/16"	77.0	3"	1 7/8"	1 1/16"
1/2"	11/16"	75.0	3 1/4"	2 1/8"	1 1/16"
13/32"	11/16"	75.0	3 1/4"	2 1/8"	1 1/32"
7/16"	7/8"	75.0	3 1/2"	2 1/4"	1 1/8"
15/32"	11/16"	75.0	3 3/4"	2 3/8"	1 1/32"
1/2"	11/16"	75.0	3 3/4"	2 3/8"	1 1/32"

STEEL SMOKE STACKS

Steel Stacks are preferable to brick chimneys, because of their higher efficiency for same dimensions and their lower cost. Small stacks are usually braced with wire guy lines and provided with a painter's block and fall. Large stacks are made self-supporting by having a bell-shaped base, and are provided with a ladder running to the top.

Height of Smoke Stacks and Commercial Horse Power of Boilers

Diameter in Inches	From Kent's Handbook											Side of Square, Inches	Effective Area, Square Feet	Actual Area, Square Feet
	50 Ft.	60 Ft.	70 Ft.	80 Ft.	90 Ft.	100 Ft.	110 Ft.	125 Ft.	150 Ft.	175 Ft.	200 Ft.			
	HP	HP	HP	HP	HP	HP	HP	HP	HP	HP	HP			
18	23	25	27	....	....	....	....	....	.....	.....	.....	16	0.97	1.77
21	35	38	41	....	....	....	....	....	.....	.....	.....	19	1.47	2.41
24	49	54	58	62	....	....	....	....	.....	.....	.....	22	2.08	3.14
27	65	72	78	83	87	....	....	....	.....	.....	.....	24	2.78	3.98
30	84	92	100	107	113	119	....	....	.....	.....	.....	27	3.58	4.91
33	105	115	125	133	141	149	....	....	.....	.....	.....	30	4.48	5.94
36	128	141	152	163	173	182	191	....	.....	.....	.....	32	5.47	7.07
39	154	168	183	196	208	219	229	....	.....	.....	.....	35	6.57	8.30
42	182	200	216	231	245	258	271	288	.....	.....	.....	38	7.76	9.62
48	....	269	290	311	330	348	365	389	.....	.....	.....	43	10.44	12.57
54	....	348	376	402	427	449	472	503	551	.....	.....	48	13.51	15.90
60	....	436	471	503	536	565	593	632	692	748	.....	54	16.98	19.64
66	....	....	579	620	658	694	728	776	849	918	981	59	20.83	23.76
72	....	....	698	746	792	835	876	934	1023	1105	1181	64	25.08	28.27
78	....	....	....	885	949	990	1038	1107	1212	1310	1400	70	29.73	33.18
84	....	....	....	1035	1098	1157	1214	1294	1418	1531	1637	75	34.76	38.48
90	....	....	....	....	1269	1338	1403	1496	1639	1770	1893	80	40.19	44.18
96	....	....	....	....	....	1532	1606	1712	1876	2027	2167	86	46.01	50.27
100	....	....	....	....	....	....	1760	1865	2043	2197	2359	89	50.11	54.54
104	....	....	....	....	....	....	1899	2024	2218	2395	2560	93	54.39	59.00
108	....	....	....	....	....	....	2051	2190	2399	2591	2770	96	58.83	63.62
112	....	....	....	....	....	....	....	2323	2588	2795	2988	100	63.46	68.42
118	....	....	....	....	....	....	....	2632	2883	3114	3339	105	70.71	75.94
120	....	....	....	....	....	....	....	2725	2986	3225	3447	107	73.22	78.54
124	....	....	....	....	....	....	....	2915	3193	3449	3687	110	78.31	83.86
130	....	....	....	....	....	....	....	3165	3467	3745	4004	116	85.04	90.76
136	....	....	....	....	....	....	....	....	3868	4178	4466	121	94.85	100.88
142	....	....	....	....	....	....	....	....	4305	4567	4886	126	103.69	109.08
150	....	....	....	....	....	....	....	....	4719	5097	5448	133	115.72	122.72

SPECIFICATIONS FOR OIL STORAGE TANKS.

42 Gallons equal 1 Barrel

	No.	Cap. Bbl's	Size Dia.	Size Hg't	Bot.	U. S. G. Weight, lbs. square foot — Shell 1st	2nd	3rd	4th	5th	6th	Angles Bot.	Angles Top
2½—Safety Factor	1	500	19'0"	10'0	7 lb.	6	5					2 x¼	2 x¼
	2	1000	"	20'0	"	7	6	5.5	5			"	"
	3	2000	27'0"	"	"	"	6.5	6	6			2½x¼	2½x¼
	4	2500	30'0"	"	"	"	"	"	"			"	"
	5	3000	33'0"	"	"	"	"	"	"			2½x⅜	2½x¼
	6	4000	38'0"	"	"	7.8	7	6.5	"			"	"
	7	5000	43'0"	"	"	"	"	7	7			3 x⅜	"
	8	10000	54'0"	25'0	"	9	7.7	7.7	"	7		"	"
	9	15000	66'0"	"	"	10.2	8.25	"	7.7	"		"	3 x¼
	10	20000	76'0"	"	"	12.75	9.5	"	"	"		3½x½	"
	11	25000	78'0"	30'0	"	15.3	12.75	10.2	8.25	7.7	7	"	"
	12	30000	85'0"	"	"	16.5	14	11.5	"	"	"	"	"
	13	35000	91'6"	"	"	17.85	15.3	12 75	9	"	"	4 x½	3 x⅜
	14	37000	94'0"	"	"	"	"	"	10.2	"	7.7	"	"
	15	40000	98'0"	"	"	19.12	"	"	"	"	"	"	"
	16	50000	109'6"	"	"	20.4	17.85	14	11	"	"	"	3½x⅜
	17	55000	114'6"	"	"	21.6	19.12	15.3	11.5	8.25	"	"	"
3—Safety Factor	18	500	19'0"	10'0	10.2	10.2	10.2					2 x¼	2 x¼
	19	1000	"	20'0	"	"	"	10.2	10.2			"	"
	20	2000	27'0"	"	"	"	"	"	"			2½x⅛	2½x¼
	21	2500	30'0"	"	"	"	"	"	"			"	3 x⅛
	22	3000	33'0"	"	"	"	"	"	"			2x½	2½x⅝
	23	4000	38'0"	"	"	"	"	"	"			"	"
	24	5000	43'0"	"	"	"	"	"	"			3 x⅜	"
	25	10000	54'0"	25'0	"	11.48	"	"	"	10.2		"	"
	26	15000	66'0"	"	"	12.75	10.84	"	"	"		"	3 x⅛
	27	20000	76'0"	"	"	13 3	12.75	"	"	"		3½x½	"
	28	25000	78'0"	30'0	"	17.85	15.3	12.75	10.84	"	10 2	"	"
	29	30000	85'0"	"	"	19.12	16.5	14.0	"	"	"	"	"
	30	35000	91'6"	"	"	20.4	17.85	15.3	11.5	"	"	4 x½	3 x⅜
	31	37000	94'0"	"	"	"	"	"	12.75	"	"	"	"
	32	40000	98'0"	"	"	21.63	"	"	"	"	"	"	"
	33	50000	109'6"	"	"	23	20.4	16.5	14	"	"	"	3½x⅜
	34	55000	114'6"	"	"	24	21.6	17.85	"	10.85	"	"	"

"See pages 17, 20 and 21 for Keystone Copper Bearing Rust-Resisting Sheet."

U. S. GALLONS IN ROUND TANKS

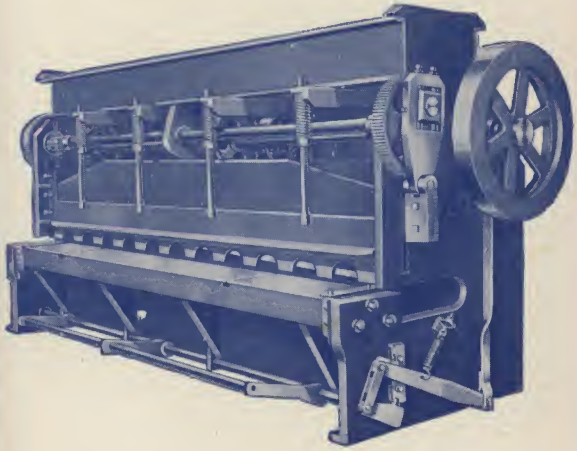
For One Foot in Depth

Dia. of Tanks	No. U. S. Gals.	Cu. Ft. and Area in Sq. Ft.	Dia. of Tanks	No. U. S. Gals.	Cu. Ft. and Area in Sq. Ft.	Dia. of Tanks	No. U. S. Gals.	Cu. Ft. and Area in Sq. Ft.
1 ft.	5.87	.785	5 ft. 8 in.	188.66	25.22	19 ft.	2120.90	283.53
1 1 in.	6.89	.922	5 9	194.25	25.97	19 3 in.	2177.10	291.04
1 2	8.	1.069	5 10	199.92	26.73	19 6	2234.	298.65
1 3	9.18	1.227	5 11	205.67	27.49	19 9	2291.70	306.35
1 4	10.44	1.396	6	211.51	28.27	20	2350.10	314.16
1 5	11.79	1.576	6 3	229.50	30.68	20 3	2409.20	322.06
1 6	13.22	1.767	6 6	248.23	33.18	20 6	2469.10	330.06
1 7	14.73	1.969	6 9	267.69	35.78	20 9	2529.60	338.16
1 8	16.32	2.182	7	287.88	38.48	21	2591.	346.36
1 9	17.99	2.405	7 3	308.81	41.28	21 3	2653.	354.66
1 10	19.75	2.640	7 6	330.48	44.18	21 6	2715.80	363.05
1 11	21.58	2.885	7 9	352.88	47.17	21 9	2779.30	371.54
2	23.50	3.142	8	376.01	50.27	22	2843.60	380.13
2 1	25.50	3.409	8 3	399.88	53.46	22 3	2908.60	388.82
2 2	27.58	3.687	8 6	424.48	56.75	22 6	2974.30	397.61
2 3	29.74	3.976	8 9	449.82	60.13	22 9	3040.80	406.49
2 4	31.99	4.276	9	475.89	63.62	23	3108.	415.48
2 5	34.31	4.587	9 3	502.70	67.20	23 3	3175.90	424.56
2 6	36.72	4.909	9 6	530.24	70.88	23 6	3244.60	433.74
2 7	39.21	5.241	9 9	558.51	74.66	23 9	3314.	443.01
2 8	41.78	5.585	10	587.52	78.54	24	3384.10	452.39
2 9	44.43	5.940	10 3	617.26	82.52	24 3	3455.	461.86
2 10	47.16	6.305	10 6	647.74	86.59	24 6	3526.60	471.44
2 11	49.98	6.681	10 9	678.95	90.76	24 9	3597.90	481.11
3	52.88	7.069	11	710.90	95.03	25	3672.	490.87
3 1	55.86	7.467	11 2	743.58	99.40	25 3	3745.80	500.74
3 2	58.92	7.876	11 6	776.99	103.87	25 6	3820.30	510.71
3 3	62.06	8.296	11 9	811.14	108.43	25 9	3895.60	520.77
3 4	65.28	8.727	12	846.03	113.10	26	3971.60	530.93
3 5	68.58	9.168	12 3	881.65	117.86	26 3	4048.40	541.19
3 6	71.97	9.621	12 6	918.	122.72	26 6	4125.90	551.55
3 7	75.44	10.085	12 9	955.09	127.86	26 9	4204.10	562.
3 8	78.99	10.559	13	992.91	132.72	27	4283.	572.66
3 9	82.62	11.045	13 3	1031.50	137.89	27 3	4362.70	583.21
3 10	86.33	11.541	13 6	1070.80	143.14	27 6	4443.10	593.96
3 11	90.13	12.048	13 9	1110.80	148.49	27 9	4524.30	604.81
4	94.	12.566	14	1151.50	153.94	28	4606.20	615.75
4 1	97.96	13.095	14 3	1193.	159.48	28 3	4688.80	626.80
4 2	102.	13.635	14 6	1235.30	165.13	28 6	4772.10	637.94
4 3	106.12	14.186	14 9	1278.20	170.87	28 9	4856.20	649.18
4 4	110.32	14.748	15	1321.90	176.71	29	4941.	660.52
4 5	114.61	15.321	15 3	1366.40	182.65	29 3	5026.60	671.96
4 6	118.97	15.90	15 6	1411.50	188.69	29 6	5112.90	683.49
4 7	123.42	16.50	15 9	1457.40	194.83	29 9	5199.90	695.13
4 8	127.95	17.10	16	1504.10	201.06	30	5287.70	706.86
4 9	132.56	17.72	16 3	1551.40	207.39	30 3	5376.20	718.69
4 10	138.25	18.35	16 6	1599.50	213.82	30 6	5465.40	730.62
4 11	142.02	18.99	16 9	1648.40	220.35	30 9	5555.40	742.64
5	146.88	19.63	17	1697.90	226.98	31	5645.10	754.77
5 1	151.82	20.29	17 3	1748.20	233.71	31 3	5737.50	766.99
5 2	156.83	20.97	17 6	1799.30	240.53	31 6	5829.70	779.31
5 3	161.93	21.65	17 9	1851.10	247.45	31 9	5922.60	791.73
5 4	167.12	22.34	18	1903.60	254.47	32	6016.20	804.25
5 5	172.38	23.04	18 3	1956.80	261.59	32 3	6110.60	816.86
5 6	177.72	23.76	18 6	2010.80	268.80	23 6	6205.70	829.58
5 7	183.15	24.48	18 9	2065.50	276.12	32 9	6301.50	842.39

31½ Gallons equal 1 Barrel.

To find the capacity of tanks greater than the largest given in the table, look in the table for a Tank of one-half of the given size and multiply its capacity by 4, or one of one-third its size and multiply its capacity by 9, etc.

Power Squaring Shears



Made of steel plate construction.

Practically unbreakable.

Plain or with gap.

Belt or motor drive.

In many sizes.

Let us figure on your requirements.

SCULLY SERVICE BABBITT

Alloy No. 9

For all-around, general purpose babbitting requirements, where constant or even speed and pressure conditions prevail. For average to high speed low pressure bearings or for fairly heavy duty bearings with average speed.

Further particulars upon request.

We also supply alloys for all babbitting requirements.

NUMBER OF U. S. GALLONS IN RETANGULAR TANKS

For One Foot in Depth.

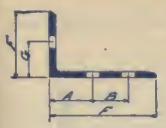
Width of Tank	Length of Tank																					
	ft. 2	ft. in. 2 6	ft. 3	ft. in. 3 6	ft. 4	ft. in. 4 6	ft. 5	ft. in. 5 6	ft. 6	ft. in. 6 6	ft. 7	ft. in. 7 6	ft. 8	ft. in. 8 6	ft. 9	ft. in. 9 6	ft. 10	ft. in. 10 6	ft 11	ft. in. 11 6	ft. 12
2 ft.	29.92	37.40	44.88	52.36	59.84	67.32	74.81	82.29	89.77	97.25	104.73	112.21	119.69	127.17	134.65	142.13	149.61	157.09	164.57	172.05	179.53
2 6 in.	.....	46.75	56.10	65.45	74.80	84.16	93.51	102.86	112.21	121.56	130.91	140.26	149.61	158.96	168.31	177.66	187.01	196.36	205.71	215.06	224.41
3	.....	.....	67.32	78.54	89.77	100.99	112.21	123.43	134.65	145.87	157.09	168.31	179.53	190.75	202.97	213.19	224.41	235.63	246.86	258.07	269.30
3 6 in.	.....	.....	.....	91.64	104.73	117.82	130.91	144.00	157.09	170.18	183.27	196.36	209.45	222.54	235.63	248.73	261.82	274.90	288.00	301.09	314.18
4	.....	.....	.....	.....	119.69	134.65	149.61	164.57	179.53	194.49	209.45	224.41	239.37	254.34	269.30	284.26	299.22	314.18	329.14	344.10	359.06
4 6 in.	.....	.....	.....	.....	.....	151.48	168.31	185.14	201.97	218.80	235.63	252.47	269.30	286.13	302.96	319.79	336.62	353.45	370.28	387.11	403.94
5	.....	.....	.....	.....	.....	.....	187.01	205.71	224.41	243.11	261.82	280.52	299.22	317.92	336.62	355.32	374.03	392.72	411.43	430.13	448.83
5 6 in.	.....	.....	.....	.....	.....	.....	.....	226.28	246.86	267.43	288.00	308.57	329.14	349.71	370.28	390.85	411.43	432.00	452.57	473.14	493.71
6	.....	.....	.....	.....	.....	.....	.....	.....	269.30	291.74	314.18	336.62	359.06	381.50	403.94	426.39	448.83	471.27	493.71	516.15	538.59
6 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	316.05	340.36	364.67	388.98	413.30	437.60	461.92	486.23	510.54	534.85	559.16	583.47
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	366.54	392.72	418.91	445.09	471.27	497.45	523.64	549.81	575.99	602.18	628.36
7 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	420.78	448.83	476.88	504.93	532.98	561.04	589.08	617.14	645.19	673.24
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	478.75	508.67	538.59	568.51	598.44	628.36	658.28	688.20	718.12
8 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	540.46	572.25	604.05	635.84	667.63	699.42	731.21	763.00
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	605.92	639.58	673.25	706.90	740.56	774.23	807.89
9 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	675.11	710.65	746.17	781.71	817.24	852.77
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	748.05	785.45	822.86	860.26	897.66
10 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	824.73	864.00	903.26	942.56
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	905.14	946.27	987.43
11 6 in.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	989.29	1032.3
12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1077.2

CORRUGATED ARCHES—2½″ Corrugations

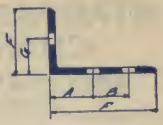
Length of sheet required when rise and span are given.

SPAN	HEIGHT OF RISE											
	1″	2″	3″	4″	5″	6″	7″	8″	9″	10″	11″	12″
18″	18 1/8	18 1/16	19 5/16	20 1/4	21 1/2	22 1/8	24 1/2	26 5/16	28 1/4	.....	.....	.....
19″	19 1/8	19 1/2	20 1/4	21 3/8	22 3/8	23 1/2	25 1/4	27	28 1/8	.....	.....	.....
20″	20 1/8	20 1/2	21 3/16	22 1/16	23 3/16	24 1/2	26	27 1/16	29 1/2	31 1/16	.....	.....
21″	21 1/8	21 1/2	22 1/8	23	24 1/16	25 5/16	26 3/4	28 5/16	30	32	.....	.....
22″	22 1/8	22 1/2	23	23 1/8	24 1/8	26 1/8	27 1/2	29	30 3/4	32 5/16	34 5/16	.....
23″	23 1/8	23 1/2	24	24 1/16	25 3/16	27	28 1/4	29 1/16	31 1/16	33 1/4	35 1/8	.....
24″	24 1/8	24 1/16	25 3/8	25 3/4	26 1/16	27 1/8	29 1/8	30 5/16	32 5/16	33 7/8	35 13/16	37 11/16
25″	25 1/8	25 1/16	26	26 1/16	27 1/16	28 1/16	30	31 3/8	32 7/8	34 5/8	36 3/8	38 1/4
26″	26 1/8	26 3/8	27	27 5/8	28 1/2	29 1/2	30 3/4	32 1/8	33 5/8	35 1/4	37	38 7/8
27″	27 1/8	27 1/16	27 7/8	28 1/2	29 1/2	30 1/2	31 5/8	32 13/16	34 3/8	36	37 11/16	39 1/2
28″	28 1/8	28 3/8	28 3/4	29 1/2	30 1/2	31 1/4	32 1/2	33 3/4	35 1/8	36 3/4	38 3/8	40 1/8
29″	29 1/8	29 3/8	29 13/16	30 7/16	31 1/4	32 1/16	33 5/16	34 1/2	35 13/16	37 1/16	39	40 3/4
30″	30 1/8	30 3/8	30 13/16	31 7/16	32 3/16	33 1/8	34 1/16	35 3/8	36 3/4	38 1/16	39 7/8	41 1/2
31″	31 1/16	31 3/8	31 13/16	32 7/16	33 1/8	34	35	36 5/16	37 1/2	39	40 3/4	42 5/16
32″	32 1/16	32 3/8	32 13/16	33 7/16	34	35	36	37 1/8	38 3/8	39 3/4	41 5/16	42 7/8
33″	33 1/16	33 3/8	33 13/16	34 1/4	35	35 13/16	36 13/16	38	39 1/8	40 5/16	41 3/8	43 1/16
34″	34 1/16	34 5/16	34 11/16	35 1/4	35 13/16	36 3/4	37 3/4	38 11/16	40 1/16	41 3/8	42 13/16	44 3/8
35″	35 1/16	35 5/16	35 11/16	36 1/16	36 7/8	37 11/16	38 5/8	39 11/16	40 7/8	42 1/16	43 5/16	45 1/16
36″	36 1/16	36 5/16	36 11/16	37 1/16	37 13/16	38 5/8	39 1/2	40 11/16	41 5/8	43	44 3/8	45 13/16
37″	37 1/16	37 5/16	37 5/8	38 1/8	38 3/4	39 1/2	40 7/16	41 11/16	42 15/16	43 11/16	45 1/16	46 7/8
38″	38 1/16	38 1/4	38 5/8	39 1/4	40 1/16	40 1/2	41 5/16	42 1/8	43 1/2	44 1/16	46	47 1/16
39″	39 1/16	39 1/4	39 5/8	40 1/8	40 13/16	41 7/16	42 1/4	43 1/4	44 3/8	45 1/2	46 11/16	48 1/4
40″	40 1/16	40 1/4	40 5/8	41 1/16	41 5/8	42 3/8	43 3/16	44 1/8	45 1/8	46 3/8	47 5/8	49
41″	41 1/16	41 1/4	41 5/8	42 1/16	42 5/8	43 1/16	44 1/8	45 1/16	46 1/8	47 1/4	48 7/16	49 13/16
42″	42 1/16	42 1/4	42 1/16	43	43 1/16	44 1/4	45 1/16	45 13/16	46 13/16	48 1/16	49 5/16	50 5/8
43″	43 1/16	43 1/4	43 1/2	44	44 1/2	45 1/4	46	46 7/8	47 7/8	48 13/16	50 1/16	51 7/16
44″	44 1/16	44 1/4	44 1/2	44 11/16	45 1/2	46 1/8	46 11/16	47 3/4	48 3/4	49 13/16	51	52 1/4
45″	45 1/16	45 1/4	45 1/2	45 11/16	46 1/2	47 1/16	47 11/16	48 11/16	49 5/8	50 11/16	51 5/8	53 1/8
46″	46 1/16	46 1/4	46 1/2	46 11/16	47 3/8	48 1/16	48 3/4	49 5/8	50 1/2	51 9/16	52 3/4	54
47″	47 1/16	47 1/4	47 1/2	47 5/8	48 3/8	49	49 3/4	50 1/2	51 7/16	52 7/16	53 9/16	54 3/4
48″	48 1/8	48 1/16	48 1/2	48 5/8	49 3/8	50	50 5/8	51 5/16	52 3/8	53 3/8	54 1/2	55 5/8

See page 59 for Corrugated Sheets.



STANDARD PUNCHING GAUGES FOR ANGLES, TEES AND ZEES



ANGLES.

F	G	A	B	F	G	A	B
7″	3½	2½	3	2″	1⅛	.....	.....
6″	3½	2½	2¼	1¾″	15/16	.....	.....
5″	3	2	1¾	1½″	13/16	.....	.....
4½″	2½	2	1¼	1⅜″	¾	.....	.....
4″	2½	.....	.....	1¼″	11/16	.....	.....
3½″	2	.....	.....	1⅛″	⅝	.....	.....
3¼″	1¾	.....	.....	1 1/16″	⅝	.....	.....
3″	1¾	.....	.....	1″	9/16	.....	.....
2¾″	1⅝	.....	.....	⅞″	½	.....	.....
2½″	1⅜	.....	.....	¾″	7/16	.....	.....
2¼″	1¼	.....	.....	⅝″	⅜	.....	.....

TEE BARS.

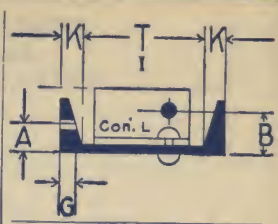
F	A	B	F	A	B
5	2⅜	.....	2¼	1⅛	1¼
4½	2¼	.....	2	1	1⅛
4	2	2¼	1¾	1	1
3½	1¾	2	1½	¾	¾
3	1½	1¾	1¼	⅝	11/16
2¾	1⅜	1 7/16	1	⅝	9/16
2½	1¼	1⅜			

ZEE BARS.

D	F	A	D	F	A
6	3½	2	4	3	1¾
5	3¼	1¾	3	2¾	1½

STANDARD STEEL CHANNELS

Estimated Weights and Dimensions.



Size	Weight per Foot	Width Flange	Tk. Web	Area Section	Max'm Rivet Grip Dia.	Max'm Rivet Grip G	Punch Gauge Inches A	Punch Gauge Inches B	K	T	Connection L's
In.	Lbs.	Inches		Sq.In.							
3	4.1	1.410	.170	1.19	3/8	1/4	7/8	2 11/16	5/8	1 3/4	2-6x4x7/16x0'2" Wt. 7 lb.
	5.00	1.504	.264	1.47				2 3/4			
	6.00	1.602	.362	1.76				2 7/8			
4	5.4	1.58	.180	1.55	1/2	5/32	1	2 11/16		2 3/4	2-6x4x7/16x0'2" Wt. 7 lb.
	6.25	1.652	.252	1.84				2 3/4			
	7.25	1.725	.325	2.13				2 13/16			
5	6.7	1.75	.190	1.95		5/16	1 1/8	2 11/16		3 3/4	2-6x4x7/16x0'2 1/2" Wt. 8 lb.
	9.00	1.89	.33	2.65			1 1/4	2 13/16			
	11.50	2.037	.477	3.38				8			
6	8.2	1.92	.200	2.38	5/8	11/32	1 1/8	2 11/16	3/4	4 1/2	2-6x4x7/16x0'3" Wt. 9 lb.
	10.50	2.038	.318	3.09				2 13/16			
	13.00	2.16	.440	3.82			1 3/8	2 15/16			
	15.50	2.283	.563	4.56				3 1/16			
7	9.8	2.09	.210	2.85		11/32	1 1/4	2 11/16		5 1/2	2-6x4x7/16x0'5" Wt. 16 lb.
	12.25	2.198	.318	3.60				2 13/16			
	14.75	2.303	.423	4.34				2 15/16			
	17.25	2.408	.528	5.07	3/8		1 1/2	3			
	19.75	2.513	.633	5.81				3 1/8			
8	11.5	2.26	.220	3.35	3/4	3/8	1 3/8	2 3/4	7/8	6 1/4	2-6x4x7/16x0'5" Wt. 16 lb.
	13.75	2.347	.307	4.04				2 13/16			
	16.25	2.439	.399	4.78			1 1/2	2 7/8			
	18.75	2.530	.490	5.51				3			
	21.25	2.622	.582	6.25				3 1/16			
9	13.4	2.43	.230	3.89		11/32	1 3/8	2 3/4		7 1/4	2-6x4x7/16x0'5" Wt. 16 lb.
	15.00	2.488	.288	4.41				2 13/16			
	20.00	2.652	.452	5.88		3/8	1 1/2	3			
	25.00	2.815	.615	7.35				3 1/8			
10	15.3	2.60	.240	4.46		1/16	1 1/2	2 3/4		8 1/4	2-6x4x7/16x0'5" Wt. 16 lb.
	20.00	2.742	.382	5.88				2 7/8			
	25.00	2.889	.529	7.35		3/8	1 3/4	3			
	30.00	3.036	.676	8.82				3 3/16			
	35.00	3.183	.823	10.29				3 5/16			
12	20.7	2.940	.280	6.03		11/32	1 3/4	2 11/16	1"	10"	2-6x4x7/16x0'7 1/2" Wt. 23 lb.
	25.00	3.05	.390	7.35				2 7/8			
	30.00	3.173	.513	8.82				3			
	35.00	3.296	.636	10.29			2	3 1/8			
	40.00	3.418	.758	11.76				3 1/4			
13	32.00	4.00	.375	9.30		5/16	2 1/2	2 7/8	1 3/8	10 1/4	2-6x4x7/10x0'7 1/2" Wt. 23 lb.
15	33.9	3.40	.400	9.90		11/32	2	2 7/8	1 3/8	12 1/4	2-6x4x7/16x0'10" Wt. 31 lb.
	35.00	3.426	.426	10.29				2 13/16			
	40.00	3.524	.524	11.76				3			
	45.00	3.622	.622	13.24		5/8		3 1/8			
	50.00	3.720	.720	14.71			2 1/2	3 1/4			
	55.00	3.818	.818	16.18				3 5/16			

For List of Channels in Stock, see page 5.

Greatest Span in Feet for Standard Beam Connections.

Size	Wt.	Span	Size	Wt.	Span	Size	Wt.	Span	Size	Wt.	Span
3"	5.7	2.0	7"	15.3	4.0	12"	31.8	9.	18"	54.7	14.5
4"	7.7	3.0	8"	18.4	5.5	12"	40.8	11.5	20"	65.4	18.
5"	10.0	4.0	9"	21.8	7.0	15"	42.9	11.	20"	81.4	22.
6"	12.5	5.5	10"	25.4	9.5	15"	60.8	15.5	24"	79.9	22.

CHANNELS

Allowable Uniform Load in Thousands of Pounds

DEPTH AND WEIGHT OF SECTION

Span in Feet	3"			4"			5"			6"			
	4.1	5	6	5.4	6.25	7.25	6.7	9	11.5	8.2	10.5	13	15.5
2	5.8	6.6	7.4	10.1	11.1	12.2	15.8	18.9	22.2	23.1	26.9	30.8	34.7
3	3.9	4.4	4.9	6.7	11.4	8.1	10.5	12.6	14.8	15.4	17.9	20.5	23.2
4	2.9	3.3	3.7	5.1	5.6	6.1	7.9	9.5	11.1	11.6	13.4	15.4	17.4
5	2.3	2.6	2.9	4.1	4.5	4.9	6.3	7.6	8.9	9.2	10.8	12.3	13.9
6	1.9	2.2	2.5	3.4	3.7	4.1	5.3	6.3	7.4	7.7	9.0	10.3	11.6
7	1.7	1.9	2.1	2.9	3.2	3.5	4.5	5.4	8.3	6.6	7.7	8.8	9.9
8	1.5	1.6	1.8	2.5	2.8	3.0	4.0	4.7	5.5	5.8	6.7	7.7	8.7
9	.....	.....	.....	2.2	2.5	2.7	3.5	4.2	4.9	5.1	6.0	6.8	7.7
10	.....	.....	.....	2.0	2.2	2.4	3.2	3.8	4.4	4.6	5.4	6.2	6.9
11	.....	.....	.....	.....	.....	.....	2.9	3.4	4.0	4.2	4.9	5.6	6.3
12	.....	.....	.....	.....	.....	.....	2.6	3.2	3.7	3.9	4.5	5.1	5.8
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.6	4.1	4.7	5.3
14	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.3	3.8	4.4	5.0

Span in Feet	7"				8"					9"			
	9.8	12.25	14.75	19.75	11.5	13.75	16.25	18.25	21.25	13.4	15	20	25
4	16.1	18.4	20.7	25.3	21.5	24.0	26.6	29.2	31.8	28.0	30.1	36.0	41.9
5	12.9	14.7	16.6	20.2	17.2	19.2	21.3	23.4	25.5	22.4	24.1	28.8	33.5
6	10.7	12.3	13.8	16.9	14.4	16.0	17.7	19.5	21.2	18.7	20.1	24.0	27.9
7	9.2	10.5	11.8	14.4	12.3	13.7	15.2	16.7	18.2	16	17.2	26.0	23.9
8	8.0	9.2	10.4	12.6	10.8	12.0	13.3	14.6	15.9	14	15.1	18.0	20.9
9	7.1	8.2	9.2	11.2	9.6	10.7	11.8	13	14.2	12.5	13.4	16.0	18.6
10	6.4	7.4	8.3	10.1	8.6	9.6	10.6	11.7	12.7	11.2	12.1	14.4	16.8
11	5.8	6.7	7.5	9.2	7.8	8.7	9.7	10.6	11.6	10.2	11.0	13.1	15.2
12	5.4	6.1	6.9	8.4	7.2	8.0	8.9	9.7	10.6	9.3	10.1	12.0	14
13	4.9	5.7	6.4	7.8	6.6	7.4	8.2	9.0	9.8	8.6	9.3	11.1	12.9
14	4.6	5.3	5.9	7.2	6.2	6.9	7.6	8.4	9.1	8.0	8.6	10.3	12
15	4.3	4.9	5.5	6.7	5.7	6.4	7.1	7.8	8.5	7.5	8.0	9.6	11.2
16	4.0	4.6	5.2	6.3	5.4	6.0	6.7	7.3	8.0	7.0	7.5	9.0	10.5
17	.....	.....	.....	.....	5.1	5.6	6.3	6.9	7.5	6.6	7.1	8.5	9.9
18	.....	.....	.....	.....	4.8	5.3	5.9	6.5	7.1	6.2	6.7	8.0	9.3
19	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.9	6.3	7.6	8.8
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.6	6.0	7.2	8.4

Loads below lower horizontal lines will produce excessive deflections.

CHANNELS

Allowable Uniform Load in Thousands of Pounds

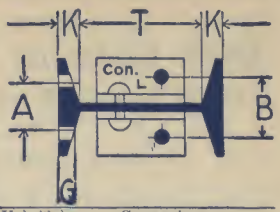
Span in Feet	10″					12″				
	15.3	20	25	30	35	20.7	25	30	35	40
5	28.5	33.6	38.8	44.0	39.3	45.5	51.2	57.5	63.7	70.0
6	23.8	28.0	32.3	36.7	41.1	38.0	42.7	47.9	53.1	58.4
7	20.4	24.0	27.7	31.5	35.2	32.5	36.6	41.1	45.5	50
8	17.8	21.0	24.3	27.5	30.8	28.5	32.0	35.9	39.8	43.8
9	15.9	18.7	21.6	24.5	27.4	25.3	28.4	31.9	35.4	38.9
10	14.3	16.8	19.4	22.0	24.6	22.8	25.6	28.7	31.9	35
11	13.0	15.3	17.6	20.0	22.4	20.7	23.3	26.1	29.0	31.8
12	11.9	14.0	16.2	18.4	10.5	19.0	21.3	23.9	26.6	29.2
13	11.0	12.9	14.9	16.9	19.0	17.5	19.7	22.1	24.5	26.9
14	10.2	12.0	13.9	15.7	17.6	16.3	18.3	20.5	22.8	25.0
15	9.5	11.2	12.9	14.7	16.4	15.2	17.1	19.2	21.2	23.3
16	8.9	10.5	12.1	13.8	15.4	14.2	16.0	18.0	19.9	21.9
17	8.4	9.9	11.4	13.0	14.5	13.4	15.1	16.9	18.7	20.6
18	7.9	9.3	10.8	12.2	13.7	12.7	14.2	16.0	17.7	19.5
19	7.5	8.8	10.2	11.6	13.0	12.0	13.5	15.1	16.8	18.4
20	7.1	8.4	9.7	11.0	12.3	11.4	12.8	14.4	15.9	17.5
21	6.8	8.0	9.2	10.5	11.7	10.8	12.2	13.7	15.2	16.7
22	6.5	7.6	8.8	10.0	11.2	10.4	11.6	13.1	14.5	15.9
23	.....	.....	.....	.....	.....	9.9	11.1	12.5	13.9	15.2
24	.....	.....	.....	.....	.....	9.5	10.7	12.0	13.3	14.6
25	.....	.....	.....	.....	.....	9.1	10.2	11.5	12.8	14.0
26	.....	.....	.....	.....	.....	8.8	9.8	11.1	12.3	13.5

Span in Feet	13″				15″					
	32	35	40	50	33.9	35	40	45	50	55
6	65.0	68.8	74.5	85.8	74.1	75.8	82.4	88.9	95.4	102.0
7	55.7	59.0	63.8	73.6	63.5	65.0	70.6	76.2	81.8	87.4
8	48.7	51.6	55.9	64.4	55.6	56.9	61.8	66.7	71.6	76.5
9	43.3	45.9	49.7	57.2	49.4	50.6	54.9	59.3	63.6	68.0
10	39.0	41.3	44.7	51.5	44.5	45.5	49.4	53.3	57.3	61.2
11	35.4	37.5	40.6	46.8	40.4	41.4	44.9	48.5	52.1	55.6
12	32.5	34.4	37.2	43.9	37.0	37.9	41.2	44.5	47.7	51.0
13	30.0	31.8	34.4	39.6	34.2	35.0	38.0	41.0	44.1	47.1
14	27.9	29.5	31.9	36.8	31.8	32.5	35.3	38.1	40.9	43.7
15	26.0	27.5	29.8	34.3	39.6	30.3	33.0	35.6	38.2	40.8
16	24.4	25.8	27.9	32.2	27.8	28.4	20.9	33.3	35.8	38.2
17	22.9	24.3	26.3	30.3	26.1	26.8	29.1	31.4	33.7	36.0
18	21.7	22.9	24.8	28.6	24.7	25.3	27.5	29.6	31.8	34.0
19	20.5	21.7	23.5	27.1	23.4	23.9	26.0	28.1	30.1	32.2
20	19.5	20.6	22.3	25.7	22.3	22.8	24.7	26.7	28.6	30.6
21	18.6	19.7	21.3	24.5	21.2	21.7	23.5	25.4	27.3	29.1
22	17.7	18.8	20.3	23.4	20.2	20.7	22.5	24.3	26.0	27.8
23	17.0	18.0	19.4	22.4	19.3	19.8	21.5	23.2	24.9	26.6
24	16.2	17.2	18.6	21.5	18.5	19.0	20.6	22.2	23.9	25.5
25	15.6	16.5	17.9	20.6	17.8	18.2	19.8	21.3	22.9	24.5
26	15.0	15.9	17.2	19.8	17.1	17.5	19.0	20.5	22.0	23.5
27	14.4	15.3	16.6	19.1	16.5	16.9	18.3	19.8	21.2	22.7
28	13.9	14.7	16.0	18.4	15.9	16.3	17.7	19.1	20.5	21.9
29	.....	.....	.....	.....	15.3	15.7	17.0	18.4	19.7	21.1
30	.....	.....	.....	.....	14.8	15.2	16.5	17.8	19.1	20.4

Loads below lower horizontal lines will produce excessive deflections.

STANDARD STEEL "I" BEAMS.

Estimated Weights and Diamension.



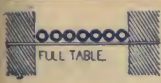
Size	Weight per Foot	Width Flange	Tk. Web	Area Section	Maximum Rivet Grip		Punch Gauge Inches		K	T	Connections
In.	Lbs.	Inches		Sq. in.	Di.	G	A	B			
3	5.7	2.33	.17	1.63	5/8	1/4	1 1/2	5 3/16	5/8	1 3/4	2-6x4x7/16x0'2"
	6.5	2.42	.26	1.91				5 1/4			Wt. 7 lb.
	7.5	2.52	.36	2.21				5 3/8			Pla 6x6x1/2=5 lb.
4	7.7	2.66	.19	2.21	1/2	9/32	1 1/2	5 3/16	5/8	2 3/4	2-6x4x7/16x0'2"
	8.5	2.73	.26	2.50				5 1/4			Wt. 7 lb.
	9.5	2.81	.34	2.79				5 3/8			
	10.5	2.88	.41	3.09				5 7/16			Pla 6x6x1/2=5 lb.
5	10.	3.00	.21	2.87		5/16	1 3/4	5 1/4	3/4	3 1/2	2-6x4x7/16x0'2 1/2"
	12.25	3.15	.36	3.60				5 3/8			Wt. 8 lb.
	14.75	3.29	.50	4.34				5 1/2			Pla 6x6x1/2=5 lb.
6	12.5	3.33	.23	3.61	5/8	11/32	2	5 1/4	3/4	4 1/2	2-6x4x7/16x0'3"
	14.75	3.45	.35	4.34				5 3/8			Wt. 9 lb.
	17.25	3.57	.47	5.07				5 1/2			Pla 6x6x1/2=5 lb.
7	15.3	3.66	.25	4.42		3/8	2 1/4	5 1/4	7/8	5 1/4	2-6x4x7/16x0'5"
	17.5	3.76	.35	5.15				5 3/8			Wt. 16 lb.
	20.	3.87	.46	5.88				5 1/2			Pla 8x8x5/8=12 lb.
8	18.4	4.00	.27	5.33	3/4	13/32	2 1/4	5 3/16	7/8	6 1/4	2-6x4x7/16x0'5"
	20.5	4.08	.35	5.96				5 3/8			Wt. 16 lb.
	23.	4.17	.44	6.69				5 7/16			
	25.5	4.27	.54	7.43				5 9/16			Pla 8x8x5/8=12 lb.
9	21.8	4.33	.29	6.31		1/16	2 1/2	5 3/16	1"	7"	2-6x4x7/16x0'5"
	25.	4.45	.41	7.35				5 1/4			Wt. 16 lb.
	30.	4.61	.57	8.82				5 9/16			
	35.	4.77	.73	10.29				5 3/4			Pla 8x12x5/8=17 lb.
10	22.	5.00	.25	6.52	3/4	1/16	2 3/4	5 1/4	1 1/8"	7 3/4"	2-6x4x7/16x0'5"
	25.4	4.66	.31	7.37		13/32		5 5/16	1	8	Wt. 16 lb.
	30.	4.80	.45	8.82				5 1/2			
	35.	4.95	.60	10.29				5 5/8			
	40.	5.10	.75	11.76				5 3/4			Pla 8x12x5/8=17 lb.
12	25.	5.00	.27	8.04	3/4	1/2	3	5 1/4	1 5/8	8 3/4	2-6x4x7/16x0'7 1/2"
	31.8	5.00	.35	9.26		11/32		5 3/8	1 1/8	9 3/4	Wt. 23 lb.
	35.	5.09	.44	10.29				5 7/16			
	40.8	5.25	.46	11.76		21/32	3	5 1/2	1 3/8	9 1/4	Pla 12x12x3/4=31 lb.
15	35.	5.50	.33	10.63	3/4	5/8	3 1/2	5 3/16	1 3/4	11 1/2	2-6x4x7/16x0'10"
	42.9	5.50	.41	12.48		5/8		5 1/4	1 1/4	12 1/2	Wt. 31 lb.
	45.	5.55	.46	13.24				5 1/2			
	50.	5.65	.56	14.71				5 9/16			
	55.	5.75	.66	16.18				5 5/8			
	60.8	6.00	.59	17.65		13/32		5 5/8	1 5/8	11 3/4	Pla 12x16x3/4=41 lb.
18	46.	6.00	.38	13.53	7/8	5/8	3 3/4	5 3/16	2	14	2-4x4x7/16x1'3"
	54.7	6.00	.46	15.93		11/16		5 1/2	1 3/8	15 1/4	Wt. 36 lb.
	60.	6.10	.56	17.65				5 9/16			
	65.	6.18	.64	19.12				5 5/8			
	70.	6.26	.72	20.59				5 3/4			Pla 16x16x1"=73 lb.
20	65.4	6.25	.50	19.08	7/8	11/32	4	5 1/2	1 1/2	17"	2-4x4x7/16x1'3"
	70.	6.33	.58	20.59				5 9/16			Wt. 36 lb.
	75.	6.40	.65	22.06				5 11/16			Pla 16x16x1"=73 lb.
24	71.	7.00	.48	20.44	7/8	3/4	4	5 3/8	2 1/2	19	2-4x4x7/16x1'6"
	79.9	7.00	.50	23.32		21/32	4	5 1/2	1 5/8	20 3/4	Wt. 43 lb.
	85.	7.07	.57	25.00				5 9/16			
	90.	7.13	.63	26.47				5 5/8			
	95.	7.19	.69	27.94				5 11/16			
	100.	7.25	.75	29.41				5 3/4			Pla 16x16x1"=73 lb.

For list of Beams and Channels in stock, see pages 4 and 5.

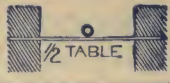
SAFE LOAD IN TONS OF 2,000 LBS. FOR SINGLE "I" BEAM COLUMNS.

Strain 12,500 pounds per square inch.

Size of Beam	Weight Per Foot	Length in Feet										
		10	12	14	16	18	20	22	24	26	28	30
24	100.	148	135	124	113	102	93	84	76	70	..	...
24	79.9	117	110	102	94	86	78	71	65	59	54	49
20	100.	151	140	129	117	108	98	89	82	74	67	62
20	81.4	123	114	105	97	89	81	74	67	62	57	52
20	65.	94	86	74	70	63	57	51	46	42	..	...
15	100.	149	138	126	115	105	95	86	79	71	..	...
15	81.	120	111	102	93	85	77	70	63	58	..	...
15	60.8	87	80	72	66	59	53	48	43	39	..	...
15	42.9	58	52	46	41	36	32	28	....	....	....	...
12	55.	74	66	59	52	46	41	36	....	....	....	...
12	40.8	54	50	44	39	35	31	28	....	....	....	...
12	31.8	42	37	33	29	26	23	20	....	....	....	...
10	40.	49	43	37	32	28	25	....	....	....	....	...
10	25.4	32	28	25	22	19	17	....	....	....	....	...
9	35.	41	35	30	26	23	....	....	....	....	....	...
9	21.8	26	23	20	17	15	13	....	....	....	....	...
8	25.5	28.2	24.5	20.8	17.8	15.6	....	....	....	....	....	...
8	18.4	20.9	18.1	15.5	13.3	11.5	....	....	....	....	....	...
7	20.	21.2	17.9	15	12.8	....	....	....	....	....	....	...
7	15.3	16.6	14.1	12	10.3	....	....	....	....	....	....	...
6	17.25	17	15.1	11.8	10	....	....	....	....	....	....	...
6	12.5	12.7	10.7	9	7.6	....	....	....	....	....	....	...
5	14.75	13.5	11	9.1	....	....	....	....	....	....	....	...
5	10.	9.2	7.5	6.3	....	....	....	....	....	....	....	...
4	10.5	8.7	7	....	....	....	....	....	....	....	....	...
4	7.7	6.4	5.1	....	....	....	....	....	....	....	....	...
3	7.5	5.6	4.4	....	....	....	....	....	....	....	....	...
3	5.7	4.2	3.3	....	....	....	....	....	....	....	....	...
....	....	....	....	....	....	....	....	....	....	....	....	...
....	....	....	....	....	....	....	....	....	....	....	....	...



SAFE LOAD IN POUNDS
STANDARD "I" BEAM



Span Ft.	3 Inch			4 Inch				5 Inch			6 Inch		
	5.7	6.5	7.5	7.7	8.5	9.5	10.5	10.	12.25	14.75	12.5	14.75	17.25
4	4410	4780	5180	7950	8470	9000	9520	12900	14520	16160	19370	21320	23280
5	3530	3830	4140	6360	6780	7200	7610	10320	11620	12930	15490	17050	18620
6	2940	3190	3450	5300	5650	6000	6350	8600	9680	10770	12910	14210	15520
7	2520	2730	2960	4540	4840	5140	5440	7370	8300	9230	11070	12180	13300
8	2210	2390	2590	3980	4240	4500	4760	6450	7260	8080	9680	10660	11640
9	1960	2130	2300	3530	3770	4000	4230	5730	6460	7180	8610	9470	10350
10	1770	1910	2070	3180	3390	3600	3810	5160	5810	6460	7750	8530	9310
11	1600	1740	1880	2890	3080	3270	3460	4690	5280	5880	7040	7750	8460
12	1470	1590	1730	2650	2820	3000	3170	4300	4840	5390	6460	7110	7760
13	1360	1470	1590	2450	2610	2770	2930	3970	4470	4970	5960	6560	7160
14	1260	1370	1480	2270	2420	2570	2720	3680	4150	4620	5530	6090	6650
15	1180	1280	1380	2120	2260	2400	2540	3440	3870	4310	5160	5680	6210
16	1100	1200	1290	1990	2120	2250	2380	3220	3630	4040	4840	5330	5820
17	1040	1130	1220	1870	1990	2120	2240	3030	3420	3800	4560	5020	5480
18	980	1060	1150	1770	1880	2000	2120	2870	3230	3590	4300	4740	5170
19	930	010	1090	1670	1780	1890	2000	2720	3060	3400	4080	4490	4900
20	880	960	1040	1590	1690	1800	1900	2580	2900	3230	3870	4260	4660
21	840	910	990	1510	1610	1710	1810	2460	2770	3080	3690	4060	4430
22								2340	2640	2940	3520	3880	4230
23								2240	2530	2810	3370	3710	4050
24								2150	2420	2690	3230	3550	3880
25								2060	2320	2590	3100	3410	3720
26								1980	2230	2490	2980	3280	3580
27								1910	2150	2390	2870	3160	3450
28											2770	3050	3330
29											2670	2940	3210

STANDARD "I" BEAMS

Span, ft.	7 Inch.			8 Inch.				9 Inch.			
	15.3	17.5	20.	18.4	20.5	23.	25.5	21.8	25.	30.	35.
4	27600	29850	32140	37920	40400	43000	46500	50300	54500	60400	66200
5	22080	23880	25710	30330	32300	34400	36500	40300	43600	48300	53000
6	18400	19900	21430	25280	26900	28700	30420	33600	36300	40200	44200
7	15770	17060	18370	21670	23100	24600	26100	28800	31100	34500	37900
8	13800	14930	16070	18960	20200	21500	22800	25160	27240	30180	33120
9	12270	13270	14280	16850	18000	19100	20300	22370	24210	26830	29440
10	11040	11940	12860	15170	16200	17200	18200	20130	21790	24150	26500
11	10040	10860	11690	13790	14700	15600	16600	18300	19810	21950	24090
12	9200	9950	10710	12640	13500	14300	15200	16770	18160	20120	22080
13	8490	9190	9890	11670	12400	13200	14000	15480	16760	18570	20380
14	7890	8530	9180	10830	11500	12300	13000	14380	15570	17250	18930
15	7360	7960	8570	10110	10800	11500	12200	13420	14530	16100	17670
16	6900	7460	8030	9408	10100	10800	11400	12580	13620	1509C	16560
17	6490	7020	7560	8920	9500	10100	10700	11840	12820	14200	15590
18	6130	6630	7140	8430	8920	9600	10100	11180	12110	13410	14720
19	5810	6280	6770	7980	8450	9000	9500	10590	11470	12710	13950
20	5520	5970	6430	7580	8030	8550	9070	10064	10900	12070	13250
21	5260	5690	6120	7220	7640	8140	8640	9590	10380	11500	12620
22	5020	5430	5840	6890	7300	7770	8250	9150	9910	10980	12050
23	4800	5190	5590	6590	6980	7430	7890	8750	9480	10500	11520
24	4600	4980	5360	6320	6690	7120	7560	8390	9080	10060	11040
25	4420	4780	5140	6070	6420	6840	7260	8050	8720	9660	10600
26	4250	4590	4940	5830	6170	6580	6980	7740	8380	9290	10190
27	4090	4420	4760	5620	5940	6330	6720	7460	8070	8940	9810
28	3940	4260	4590	5420	5720	6110	6480	7190	7780	8620	9460
29	3810	4120	4430	5230	5530	5900	6260	6940	7510	8330	9140
30								6710	7260	8050	8830
31								9460	7030	7790	8550

1/4 TABLE

SAFE LOADS IN POUNDS

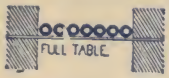
STANDARD and SPECIAL "I" BEAMS

1/8-TABLE

Span ft.	10 Inch.					12 Inch.						
	22 lbs.	25.4 lbs.	30 lbs.	35 lbs.	40 lbs.	25 lbs.	31.8 lbs.	35 lbs.	40.8 lbs.	45 lbs.	50 lbs.	55 lbs.
5	47100	52100	57200	62500	67700	62400	76700	81200	95600	101600	107900	114100
6	39200	43400	47700	52100	56400	52000	63900	67600	79700	84700	89900	95100
7	33600	37200	40900	44600	48400	44600	54800	58000	68300	72600	77000	81500
8	29400	32600	35800	39000	42300	39000	48000	50700	59800	63500	67400	71300
9	26100	28900	31800	34700	37600	34700	42600	45100	53100	56400	59900	63400
10	23500	26000	28600	31200	33900	31200	38400	40600	47800	50800	53900	57100
11	21400	23700	26000	28400	30800	28400	34900	36900	43500	46200	49000	51900
12	19600	21700	23900	26000	28200	26000	32000	33800	39800	42300	44900	47600
13	18100	20000	22000	24000	26000	24000	29500	31300	36800	39100	41500	43900
14	16800	18600	20400	22300	24200	22300	27400	29000	34200	36300	38500	40800
15	15700	17400	19100	20800	22600	20800	25600	27100	31900	33900	36000	38000
16	14700	16300	17900	19500	21200	19500	24000	25400	29900	31700	33700	35700
17	13800	15300	16800	18400	19900	18400	22600	23900	28100	29900	31700	33600
18	13100	14500	15900	17400	18800	17300	21300	22500	26600	28200	30000	31700
19	12400	13700	15100	16400	17800	16400	20200	21400	25200	26700	28400	30000
20	11800	13000	14300	15600	16900	15600	19200	20300	23900	25400	27000	28500
21	11200	12400	13600	14900	16100	14900	18300	19300	22800	22800	24200	25700
22	10700	11800	13000	14200	15400	14200	17400	18400	21700	23100	24500	25900
23	.....	11320	12450	13600	14700	13600	16700	17600	20800	22100	23400	24800
24	.....	10850	11900	13000	14110	13000	16000	16900	19900	21200	22500	23800
25	.....	10400	11450	12500	13540	12500	15300	16200	19100	20300	21600	22800
26	.....	10000	11000	12000	13000	12000	14800	15600	18400	19500	20700	21900

STANDARD AND SPECIAL "I" BEAMS

Span ft.	15 Inch.							18 Inch.				
	35 lbs.	42.9 lbs.	50 lbs.	55 lbs.	60.8 lbs.	65 lbs.	70 lbs.	46 lbs.	54.7 lbs.	60 lbs.	65 lbs.	70 lbs.
6	87200	104800	114600	121100	144400	150800	157300	133500	157100	166300	174100	182000
7	74700	89800	98200	103800	123700	129200	134800	114400	134700	142500	149200	156000
8	65400	78500	85900	90800	108300	113100	118000	100100	117900	124700	130600	136500
9	58100	69800	76400	80800	96200	100500	104900	89000	104800	110900	116100	121300
10	52300	62800	68800	72700	86600	90500	94400	80100	94300	99800	104500	109200
11	47600	57100	62500	66100	78700	82200	85800	72800	85700	90700	95000	99300
12	43600	52400	57300	60600	72200	75400	78700	66700	78600	83100	87100	91000
13	40200	48300	52900	55900	66600	69600	72600	61600	72500	76700	80400	84000
14	37400	44900	49100	51900	61900	64600	67400	57200	67300	71300	74600	78000
15	34900	41900	45800	48500	57700	60300	62900	53400	62900	66500	69600	72800
16	32700	39300	43000	45400	54100	56500	59000	50100	58900	62400	65300	68200
17	30800	37000	40400	42800	50900	53200	55500	47100	55500	58700	61500	64200
18	29100	34900	38200	40400	48100	50300	52400	44500	52400	55400	58000	60706
19	27500	33100	36200	38300	45600	47600	49700	42100	49600	52500	55000	57500
20	26200	31400	34400	36300	43300	45200	47200	40000	47100	49900	52200	54600
21	24900	29900	32700	34600	41200	43100	44900	38100	44900	47500	49700	52000
22	23800	28600	31300	33000	39400	41100	42900	36400	42900	45300	47500	49600
23	22700	27300	29900	31600	37700	39300	41000	34800	41000	43400	45400	47500
24	21800	26200	28600	31300	36100	37700	39300	33400	39300	41600	43500	45500
25	20900	25100	27500	29100	34600	36200	37800	32000	37700	39900	41800	43700
26	20100	24200	26400	28000	33300	34800	36300	30800	36300	38400	40200	42000
27	19400	23300	25500	26900	32100	33500	35000	29700	34900	37000	38700	40400
28	18700	22400	24600	26000	30900	32300	33700	28600	33700	35600	37300	39000
29	18000	21700	23700	25100	29900	31200	32500	27600	32500	34400	36000	37600
30	17400	20900	22900	24200	28900	30200	31500	26700	31400	33300	34800	36400
31	16900	20300	22200	23400	27900	29200	30400	25800	30400	32200	33700	35700
32	16300	19600	21500	22700	27100	28300	29500	25000	29500	31200	32600	34100
33	.....	.....	.....	.....	.....	.....	.....	24300	28600	30200	31700	33100
34	.....	.....	.....	.....	.....	.....	.....	23600	27700	29300	30700	32100
35	.....	.....	.....	.....	.....	.....	.....	22900	26900	28500	29800	31200
36	.....	.....	.....	.....	.....	.....	.....	22200	26200	27700	29000	30300
37	.....	.....	.....	.....	.....	.....	.....	21600	25500	27000	28200	29500
38	.....	.....	.....	.....	.....	.....	.....	21100	24800	26300	27500	28700



SAFE LOADS IN POUNDS

STANDARD AND SPECIAL "I" BEAMS

Span, ft.	20 Inch.				21 Inch.		24 Inch.					
	65.4 lbs.	70 lbs.	75 lbs.	81.4 lbs.	58 lbs.	75 lbs.	71 lbs.	79.9 lbs.	85 lbs.	90 lbs.	95 lbs.	100 lbs.
8	155900	162600	169200	195500	145100	193500	201700	231900	240900	248700	256600	264400
9	138600	144600	154000	173800	129000	172000	179300	206100	214100	221100	228000	235000
10	124700	130100	135300	156400	116100	154800	161300	185500	192700	199000	205200	211500
11	113400	118300	123000	142200	105600	140700	146700	168700	175200	180900	186600	192300
12	104000	108400	112800	130300	96800	129000	134400	154600	160600	165800	171000	176300
13	96000	101000	104100	120300	89300	119100	124100	142700	148200	153100	157900	162700
14	89100	92900	96700	111700	82900	110600	115200	132500	137600	142100	146600	151100
15	83200	86700	90200	104300	77400	103200	107600	123700	128500	132600	136800	141000
16	78000	81300	84600	97700	72600	96800	100800	116000	120400	124400	128300	132200
17	73400	76500	79600	92000	68300	91100	94900	109100	113400	117000	120700	124400
18	69300	72300	76300	86900	64500	86000	89600	103100	107100	110500	114000	117500
19	65700	68500	71200	82300	61100	81500	84900	97600	101400	104700	108000	111300
20	62400	65100	67700	78200	58100	77400	80700	92800	96300	99500	102600	105800
21	59400	62000	64400	74500	55300	73700	76800	88300	91800	94700	97700	100700
22	56700	59100	61500	71100	52800	70400	73300	84300	87600	90400	93300	96100
23	54200	56600	58800	68000	50500	63700	70100	80700	83800	86500	89200	92000
24	52000	54200	56400	65200	48400	64500	67200	77300	80300	82900	85500	88100
25	49900	52000	54100	62600	46400	61900	64500	74200	77100	79600	82100	84600
26	48000	50000	52100	60200	44700	59500	62100	71400	74100	76500	78900	81400
27	46200	48200	50100	57900	43000	57300	59800	68700	71400	73700	76000	78300
28	44600	46500	48300	55900	41500	55300	57600	66300	68800	71100	73300	75500
29	43000	44900	46700	53900	40000	53400	55600	64000	66400	68600	70800	72900
30	41600	43400	45100	52100	38700	51600	53800	61800	64200	66300	68400	70500
31	40200	42000	43700	50500	37500	49900	52000	59800	62200	64200	66200	68200
32	39000	40700	42300	48900	36300	48400	50400	58000	60200	62200	64100	66100
33	37800	39400	41000	47400	35200	46900	48900	56200	58400	60300	62200	64100
34	36700	38300	39800	46000	34200	45500	47500	54600	56700	58500	60400	62200
35	35600	37200	38700	44700	33200	44200	46100	53000	55100	56800	58600	60400
36	34700	36100	37600	43400	32300	43000	44800	51500	53500	55300	57000	58800
37	33700	35200	36600	42300	31400	41800	43600	50100	52100	53800	55500	57200
38	32800	34200	35600	41200	30600	40700	42500	48800	50700	52400	54000	55700
39	32000	33400	34700	40100	29800	39700	41400	47600	49400	51000	52600	54200
40	31200	32500	33800	39100	29000	38700	40300	46400	48200	49700	51300	52900
41	30400	31700	33000	38100	28300	37800	39300	45300	47000	48500	50100	51600
42	29700	31000	32200	.....	27600	36900	38400	44200	45900	47400	48900	50400
43	.....	.....	.....	.....	27000	36000	37500	43100	44800	46300	47700	49200
44	.....	.....	.....	.....	26400	35200	36700	42400	43800	45200	46600	48100
45	.....	.....	.....	.....	.....	.....	35900	41200	42800	44200	45600	47000
46	.....	.....	.....	.....	.....	.....	35100	40300	41900	43300	44600	46000
47	.....	.....	.....	.....	.....	.....	34300	39500	41000	42300	43700	45000
48	.....	.....	.....	.....	.....	.....	33600	38700	40100	41500	42800	44100
49	.....	.....	.....	.....	.....	.....	32900	37900	39300	40600	41900	43200
50	.....	.....	.....	.....	.....	.....	32300	37100	38500	39800	41000	42300

Safe loads are based upon a maximum bending stress of 16,000 pounds per square inch and include the weight of the beam. Beams to be secured against lateral deflection. Loads below lower horizontal lines produce a deflection exceeding 1-360 of span, the allowable deflection for plastered ceilings.

See Page 30 for List of sizes carried in stock

WAREHOUSE EXTRAS FOR CUTTING SHEETS

No. 8 Gauge and Lighter

—per cwt.

	Cutting to Length		Splitting to 6 in. and over in width	Splitting to Width of 6 in. and over and Cutting to Length	
	1 ft. and over	6 in. to 1 ft. 0 in.		1 ft. and over	6 in. to 1 ft.
Sheets No. 8	$0.20	$0.40	$0.20	$0.40	$0.60
" No. 10	.25	.45	.25	.45	.65
" No. 12	.30	.50	.30	.50	.70
" No. 14	.35	.55	.35	.55	.75
" No. 16	.40	.60	.40	.60	.80
" No. 18 and lighter	.50	.70	.50	.70	.90

Sheets of all kinds cut to sketch. Prices on request.

CRATING SHEETS

*Skeleton Crating 40c per 100 lbs.
Skeleton Crating, minimum charge, **$2.00.**
Full Crating 95c per 100 lbs.
Full Crating, minimum charge, **$4.75.**

*Figured on net weight of the Sheets.

WAREHOUSE EXTRAS FOR CUTTING DEFORMED CONCRETE BARS

All sizes 3′ 0″ and longer.....No extra.
All sizes under 3′ 0″..... .20 per 100 lbs. extra.

The above cutting charges are subject to change without notice.

EXTRAS FOR CUTTING WAREHOUSE MATERIAL

	3 ft. and over	2 ft. to 3 ft.	1 ft. to 2 ft.	6 in. to 1 ft.	4 in. to 6 in.	2 in. to 4 in.
Beams and channels, 3 in. and over..... Zees..... Tees, 3 in. and over.. "H" Sections.....	.00	.15	.30	.85	1.40	2.30
Angles, 2x2x3/16 in. and larger.....	.00	.10	.20	.30	.50	.75
Mild steel rounds, squares and hexagons, 2 in. and under	.20	.20	.30	.50	.65	.80
Mild steel rounds and squares, over 2 in. Flats, ¼ in. thick and over... ..... Angles under 2x2x3/16 also 2 in. to 3 in. wide by ⅛ in. thick. Channels under 3 in... Tees and Zees under 3 in.....	.30	.30	.40	.85	1.40	2.30
Rails.....	.25	.25	.40	.85	1.40	2.30
Plates 5/16 in. and over	.00	.10	.20	.30		
To length only....	.20	.30	.40	.50		
To length and width						
Sketch plates. 3/16 in. and over.....	.25	.35	.45	.55		
Billets.....	Special	l depe	nding	on wo	rk and	waste.

Cutting Flange and Firebox Plates subject to special prices.

EXTRA FOR STOCK SIZE CIRCLES

24″ to 100″ dia. inclusive—3/16″ to 1″ thick incl. .$1.25 per 100 lbs.
Under 24″ to 12″ dia. incl.— " " " .. 2.00 " "
" 12″ " " — " " " .. 2.75 " "
Over 100″ to 107½″ " " — " " " .. 1.30 " "

Light flats and bands, which include all gauges 3/16 in. and lighter, prices on request. For cutting extras on cold rolled bars, see page 33.

The above cutting charges apply where the waste in material is not excessive and are subject to change without notice.

SCULLY
Steel and Iron Co.

DEALERS IN

Boiler, Tank, Bridge and Universal Plates,
"Scully" Copper Bearing Steel Plates,
Scully Wrought Steel Floor Plates,
Black and Galvanized Sheet Steel,
Standard Quality and Keystone Copper Bearing,
Long Terne and Wellsville Polished Sheets,
Corrugated Sheets and Roofing Steel,
Lapwelded and Seamless Steel and Charcoal Iron Boiler Tubes,
Boiler, Structural and Sheet Iron Rivets,
Beams, Channels, Angles and Tees,
Steel Bars, Bands, Hoops and Tires,
Cold Rolled and Turned Steel Shafting and Cold Rolled Strip,
Solid and Hollow Stay-Bolt Iron,
Welding Rods,
Machine, Carriage and Boiler Bolts,
Lag Screws, Turnbuckles and Bolt Ends.
Hot Pressed, Cold Punched and Semi-Finished Nuts,
Wrought Cast Malleable and Lock Washers,
Scully Weldless Steel Boiler Braces,
Lugs, Hangers and Ferrules,
Flanges, Staybolts, Etc.,
"Everlasting" Blow-Off Valves,
Tube Expanders, Tube Cutters, Tube Cleaners,
JMC Expansion Reamers,
Iron Workers' and Boilermakers' Hand and Power Tools,
Iron Workers' and Boilermakers' Hand and Power Machinery,
Vises and Anvils,
Scully Adjustable Boring and Turning Bars,
Chain, Electric and Pneumatic Hoists,
Rivet Forges and Blowers,
Pneumatic Tools, Etc.

TWENTY-FOURTH ST. AND ASHLAND AVE.
CHICAGO